SITE IMPROVEMENT PLANS **FOR** WILMINGTON FIRE DISTRICT FIRE STATION

CITY OF WILMINGTON, WILL COUNTY, ILLINOIS

INDEX OF SHEETS:

C-100 COVER SHEET C-200 GENERAL NOTES

C-400 EXISTING CONDITIONS & DEMOLITION PLAN

C-600 UTILITY PLAN

C-700 GRADING & EROSION CONTROL PLAN

LEGEND

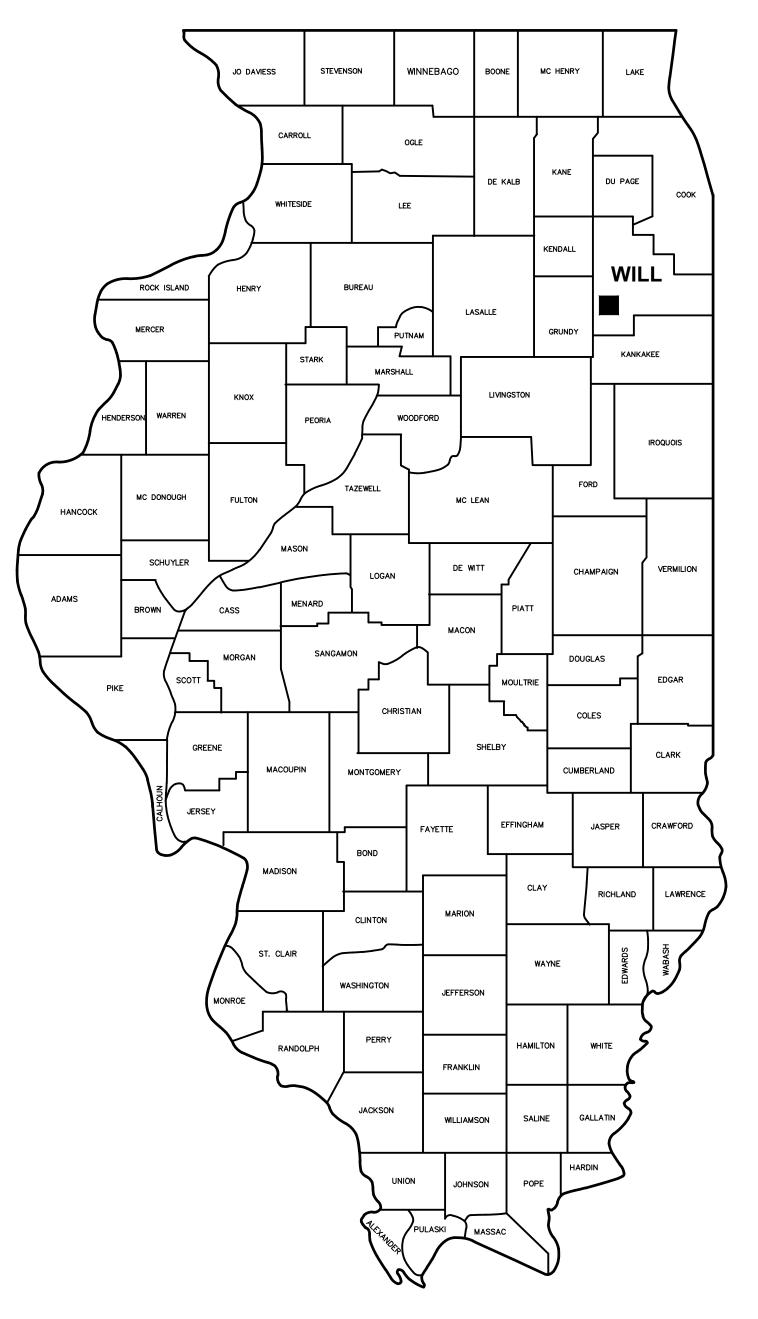
	BOUNDARY OF PROPERTY
<u> </u>	BUILDING SETBACK LINE
	EXISTING LOT LINE
	EXISTING RIGHT-OF-WAY
	EXISTING EASEMENT
×	EXISTING FENCE
——————————————————————————————————————	EXISTING WATER MAIN
	EXISTING SANITARY SEWER
─	EXISTING STORM SEWER
———	PROPOSED STORM SEWER
————W———	PROPOSED WATER MAIN/SERVICE
	PROPOSED GUARD RAIL
	PROPOSED SILT FENCE
	PROPOSED CONTOUR
©	EXISTING MANHOLE
Д	EXISTING WATER SERVICE VALVE
Ø	EXISTING FIRE HYDRANT
O	IRON PIPE FOUND
	IRON ROD FOUND
•	
CONC	CONCRETE
BOC	BACK OF CURB
EOP	EDGE OF PAVEMENT
F/G	FINISHED GRADE



LOCATION MAP



THESE PLANS ARE PREPARED FOR THE CONDITIONAL USE APPLICATION AND ARE PRELIMINARY IN NATURE. FINAL ENGINEERING PLANS WILL BE PREPARED UPON APPROVAL OF THE CONDITIONAL USE.



LOCATION OF SECTION INDICATED THUS: -

OWNER

WILMINGTON FIRE PROTECTION DISTRICT 501 N. MAIN STREET WILMINGTON, IL 60481 PHONE: (815) 476-6675 FAX: (815) 476-0878

ENGINEER

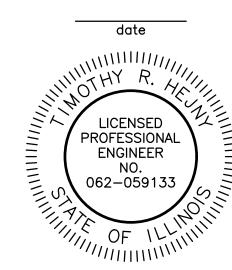
CHAMLIN & ASSOCIATES, INC. 221 WEST WASHINGTON STREET MORRIS, ILLINOIS 60450 PHONE: (815) 942—1402 timhejny@chamlin.com

SURVEYOR

COMPASS SURVEYING LTD 2631 GINGER WOODS PARKWAY, STE. 100 AURORA, ILLINOIS 60502 PHONE: (630) 820-9100 admin@clsurveying.com

ARCHITECT

STUDIO GC 223 W. JACKSON BLVD., SUITE CHICAGO, ILLINOIS 60606 PHONE: (312) 253-3224 m.francisco@studiogc.com



signature PROFESSIONAL DESIGN FIRM LICENSE NO. 184-001717

expires 11-30-2023

COVER SHEET



BENCHMARKS

BENCHMARK #1: NUMBER BOLT ON FIRE

BENCHMARK #2: NUMBER BOLT ON FIRE

HYDRANT

HYDRANT

EL. = 550.38

EL. = 551.24

COMPASS SURVEYING LTD, PROJECT NUMBER 22.0103, REVISED MAY 05, 2022

TOPOGRAPHIC AND BOUNDARY

SURVEY INFORMATION PROVIDED BY

CHAMLIN & ASSOCIATES JOB NO.: 33026.00

COPYRIGHT 2023, STUDIO GC, INC.

THE CHAMLIN & ASSOCIATES "SPECIFICATIONS" SHALL GOVERN THE CONSTRUCTION OF THIS THIS PROJECT.

ALL WORK SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE IDOT STANDARD SPECIFICATIONS, LATEST EDITION.

IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO EXAMINE THE PLANS AND SPECIFICATIONS, VISIT THE WORK SITE, BE INFORMED OF THE WORK INVOLVED, BE INFORMED OF FEDERAL, STATE, AND LOCAL LAWS, LOCAL CODE REQUIREMENTS, ORDINANCES, RULES AND REGULATIONS, AND ANY OTHER ITEMS WHICH MAY AFFECT THE COST AND/OR TIME TO COMPLETE THE PROJECT. IT IS THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE ENGINEER SHOULD ANY DISCREPANCIES BE NOTICED BETWEEN THE PLANS, SPECIFICATIONS, OR

THE LOCATION OF EXISTING UNDERGROUND OR OVERHEAD UTILITIES IF SHOWN ON THE PLANS IS FOR THE CONVENIENCE OF THE BIDDER ONLY. THE OWNER AND/OR ENGINEER ASSUMES NO RESPONSIBILITY WHATSOEVER WITH RESPECT TO THE ACCURACY OR COMPLETENESS OF THE INFORMATION SHOWN. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE THE ACTUAL LOCATION OF ALL SUCH UTILITIES.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER PROTECTION OF ALL EXISTING PUBLIC OR PRIVATE ROADWAYS, STRUCTURES, AND UTILITIES PRIOR TO THE START OF CONSTRUCTION AND SHALL BE RESPONSIBLE FOR ANY DAMAGE TO SAID ROADWAYS, STRUCTURES, AND UTILITIES. ANY ROADWAY, STRUCTURE, OR UTILITY THAT IS DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED OR REPLACED BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE.

ALL FIELD DRAINAGE TILE DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED TO THE SATISFACTION OF THE ENGINEER OR REROUTED TO A LOCATION DETERMINED BY THE ENGINEER.

WHEN SURVEY CONTROL POINTS ARE SET BY THE ENGINEER TO ESTABLISH THE HORIZONTAL AND VERTICAL CONTROL REQUIRED FOR THE CONSTRUCTION OF THE VARIOUS CONTRACT ITEMS OF WORK, THE ENGINEER SHALL BE RESPONSIBLE FOR THE ACCURACY OF THE CONTROL POINTS SET. THE CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR ALL MEASUREMENTS TAKEN OR DERIVED BY THE CONTRACTOR FROM CONTROL POINTS SET BY THE ENGINEER.

THE CONTRACTOR SHALL PROTECT AND PRESERVE ALL CONTROL POINTS OR REFERENCE STAKES SET BY THE ENGINEER. SHOULD THE CONTRACTOR DISTURB ANY CONTROL POINT OR REFERENCE STAKE WITHOUT THE PRIOR APPROVAL OF THE ENGINEER, THE ENGINEER MAY DEDUCT THE DIRECT ENGINEERING COST INCURRED IN THE RE-ESTABLISHMENT OF THE CONTROL POINT OR REFERENCE STAKE FROM COMPENSATION DUE THE CONTRACTOR.

WHEN THE OWNER EMPLOYS MULTIPLE CONTRACTORS, EACH CONTRACTOR SHALL CONDUCT HIS/HER WORK SO AS TO NOT INTERFERE WITH OR HINDER THE PROGRESS OR COMPLETION OF THE WORK BEING PERFORMED BY OTHER CONTRACTORS AND/OR UTILITY COMPANIES.

EACH CONTRACTOR SHALL ASSUME ALL LIABILITY, FINANCIAL OR OTHERWISE, IN CONNECTION WITH HIS/HER CONTRACT AND SHALL PROTECT AND HOLD HARMLESS THE OWNER AND ENGINEER FROM ANY AND ALL DAMAGES OR CLAIMS THAT MAY ARISE DUE TO INCONVENIENCE, DELAY, OR LOSS EXPERIENCED BY THE CONTRACTOR CAUSED BY THE PRESENCE AND OPERATION OF OTHER CONTRACTORS AND/OR UTILITY COMPANIES WORKING WITHIN THE LIMITS OF THE PROJECT

SOIL EROSION AND SEDIMENT CONTROL SHALL BE IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS AND DETAILS CONTAINED WITHIN THE PLANS.

PROVISIONS SHALL BE MADE TO MINIMIZE THE TRANSPORT OF SEDIMENT BY VEHICULAR TRAFFIC FROM THE CONSTRUCTION SITE. ALL STREETS SHALL BE CLEANED DAILY OR AS NECESSARY TO KEEP CLEAN OF SEDIMENT AND DEBRIS CAUSED BY CONSTRUCTION ACTIVITIES. ADJACENT PROPERTIES SHALL BE PROTECTED FROM SEDIMENT DEPOSITION BY USE OF AN ACCEPTABLE EROSION CONTROL PRACTICE SUCH AS VEGETATIVE BUFFER STRIPS OR SEDIMENT BARRIERS.

FOR CONSTRUCTION SITES WITH ONE (1) ACRE OR MORE OF DISTURBANCE, ALL CONTRACTORS AND SUB-CONTRACTORS WILL BE REQUIRED TO CERTIFY A STORM WATER POLLUTION PREVENTION PLAN (SWPPP). THE SWPPP, IF NECESSARY, AND ALL PERMITS PERTAINING TO SOIL AND EROSION CONTROL WILL BE PREPARED AND SUBMITTED BY THE OWNER/ENGINEER.

IT WILL BE THE CONTRACTOR/SUB-CONTRACTOR'S RESPONSIBILITY TO IMPLEMENT AND FOLLOW THE SWPPP.

WHEN REQUESTED BY THE OWNER, THE ENGINEER SHALL PROVIDE CONSTRUCTION INSPECTION TO ASCERTAIN THE WORK IS IN SUBSTANTIAL CONFORMANCE WITH THE CONTRACT DOCUMENTS AND WITH THE DESIGN INTENT. THE ENGINEER'S UNDERTAKING SHALL NOT RELIEVE THE CONTRACTOR FROM THE CONTRACTOR'S OBLIGATION TO PERFORM WORK IN CONFORMITY WITH THE PLANS AND SPECIFICATIONS AND IN A WORKMANLIKE MANNER, SHALL NOT MAKE THE ENGINEER AN INSURER OF THE CONTRACTOR'S PERFORMANCE; AND SHALL NOT IMPOSE UPON THE ENGINEER ANY OBLIGATION TO ENSURE THAT THE WORK IS PERFORMED IN A SAFE MANNER. THE CONTRACTOR SHALL BE TOTALLY RESPONSIBLE FOR SAFETY FOR THIS PROJECT.

BEFORE ACCEPTANCE AND SUBSEQUENT FINAL PAYMENT, ALL WORK SHALL BE INSPECTED AND APPROVAL BY THE OWNER OR HIS REPRESENTATIVE. FINAL PAYMENT SHALL BE MADE ONLY AFTER ALL OF THE CONTRACTOR'S WORK HAS BEEN APPROVED AND INSPECTED.

TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH APPLICABLE PORTIONS OF THE ILLINOIS DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" ADOPTED JANUARY 1, 2022 AND THE LATEST EDITION OF THE "ILLINOIS MANUAL FOR UNIFORM TRAFFIC CONTROL FOR STREETS AND HIGHWAYS". THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR USE OF APPROPRIATE ILLINOIS DEPARTMENT OF TRANSPORTATION HIGHWAY STANDARDS PERTAINING TO TRAFFIC CONTROL FOR THE ENTIRE DURATION OF THE PROJECT AND SOLELY LIABLE FOR ANY ACCIDENTS, WHICH MAY OCCUR DUE TO INADEQUATE TRAFFIC CONTROL. SIGNAGE, PAVEMENT MARKINGS, MAINTENANCE, FLAGGERS, BARRICADES AND INSPECTION SHALL BE INCLUDED IN THE LUMP SUM PRICE FOR TRAFFIC CONTROL.

THE ILLINOIS DEPARTMENT OF TRANSPORTATION HIGHWAY STANDARDS NOTED ON THESE PLANS WILL BE CONSIDERED A PART OF THE PLANS AND WILL APPLY TO THE WORK DESCRIBED HEREIN. COPIES OF THE APPLICABLE HIGHWAY STANDARDS ARE APPENDED TO THE SPECIFICATIONS FOR THE CONVENIENCE OF THE BIDDER.

STRUCTURE RIM OR FLOWLINE ELEVATIONS SHOWN ON THE PLANS ARE TO BE CONSIDERED APPROXIMATE. ADJUSTMENT RINGS SHALL BE PROVIDED TO SET THE CASTING FLUSH WITH THE FINISHED GROUND, PAVEMENT, OR GUTTER SURFACE. PROVIDING AND INSTALLING ADJUSTMENT RINGS SHALL BE CONSIDERED INCIDENTAL TO EACH MANHOLE OR INLET STRUCTURE INSTALLED AS PART OF

SAW CUTTING FOR THIS PROJECT WILL BE INCIDENTAL IN ALL CASES. THIS SHALL INCLUDE FULL DEPTH SAW CUTTING ALONG ALL EDGES FOR REMOVAL OF PAVEMENTS, CURB, COMBINATION CURB & GUTTER, ETC. IT SHALL ALSO INCLUDE SUBSEQUENT SAW CUTTING TO PROVIDE CLEAN EDGES FOR PAVING WORK AND SCORING OF CONCRETE PAVEMENTS AND CURBS AS REQUIRED FOR CONTROL JOINTS. WHERE SAW CUTS ARE INDICATED ON THE DRAWINGS OR

DETAILS OR NOTES, THESE SAW CUTS ARE MANDATORY.

SEWER REMOVAL REQUIRED TO INSTALL PROPOSED SEWERS SHALL BE CONSIDERED INCIDENTAL IN ALL CASES AND SHALL INCLUDE THE PLUGGING OR ABANDONING OF ANY SEWER LATERALS NOT TO BE RECONNECTED TO PREVENT GROUNDWATER INFILTRATION. THIS SHALL ALSO PERTAIN TO THE REMOVAL SEWERS CONNECTED TO INLETS, DRAINAGE STRUCTURES, AND MANHOLES TO BE REMOVED. PLUGGING OF THE SEWER SHALL BE DONE WITH NON-SHRINK GROUT OR OTHER MEANS APPROVED BY AND TO THE SATISFACTION OF THE

EXPANSION JOINT MATERIALS SHALL BE PROVIDED BETWEEN PCC CONSTRUCTION. THESE MATERIALS SHALL BE CONSIDERED INCIDENTAL.

ENGINEER.

CONTRACT.

ALL SANITARY AND STORM SEWER LATERALS OR SERVICES TO BE RECONNECTED TO EXISTING LATERALS SHALL USE A FERNCO OR ENGINEER APPROVED COUPLING. THIS WORK SHALL BE CONSIDERED INCIDENTAL TO THE LATERAL OR SERVICE BEING INSTALLED.

FOR THE SAKE OF SAFETY, TRAFFIC CONTROL, AND STREET INTEGRITY, THE OWNER AND ENGINEER WILL HAVE FINAL SAY ON TRUCKING ROUTES DURING THE CONSTRUCTION OF THE PROJECT. THE CONTRACTOR SHALL LIMIT TRUCKING MOVEMENTS TO THOSE AREAS SPECIFIED BY THE OWNER AND ENGINEER AS THE WORK PROGRESSES THROUGHOUT THE JOB.

SHEET PILES REQUIRED TO MAINTAIN TRENCH SIDES AND PROTECT STRUCTURES SHALL BE DESIGNED BY A LICENSED PROFESSIONAL ENGINEER IN THE STATE OF ILLINOIS AND SHALL BE INCIDENTAL TO THE CONTRACT.

DEWATERING OF THE EXCAVATION DURING CONSTRUCTION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE INCIDENTAL TO THE

EROSION CONTROL SHALL CONSIST OF THE FOLLOWING ITEMS AND SHALL BE INCLUDED IN THE CONTRACT LUMP SUM PRICE:

- 1. PIPE AND INLET PROTECTION PER THE DETAILS IN THESE DRAWINGS AND
- 2. TEMPORARY EROSION CONTROL SEEDING SHALL BE INSTALLED ON ALL SLOPES STEEPER THAN 4:1 WHEN FINAL SEEDING AND EROSION CONTROL BLANKET WILL NOT BE INSTALLED UNTIL THE CONCLUSION OF THE
- 3. TEMPORARY CONCRETE WASHOUT FACILITY -EARTHEN TYPE

TO THE APPROVAL OF THE ENGINEER.

- 4. EROSION CONTROL BLANKET ON FINAL SEEDED SLOPES STEEPER THAN 4:1
- 5. SILT FENCE

CONSTRUCTION.

6. STABILIZED CONSTRUCTION ENTRANCE

WHERE THE PLANS CALL FOR A MANHOLE OPENING TO BE PLUGGED WITH BLOCK AND MORTAR, CONTRACTOR SHALL USE CONCRETE BLOCK OF THE SAME THICKNESS AS THE MANHOLE SIDE WALL AND SHALL INSTALL THE BLOCK ON THE SAME CURVE AS THE MANHOLE SIDE WALL SO THAT THE BLOCK WILL BE UNDER COMPRESSION WHEN IT EXPERIENCES SOIL LOADS. THIS WORK WILL BE INCIDENTAL TO THE MANHOLE INSTALLATION. MORTAR SHALL BE ALLOWED TO CURE BEFORE BACKFILL IS PLACED AROUND THE PLUG.

STORMS SEWERS

STORM SEWERS TO BE CONSTRUCTED AS SPECIFIED IN THE IDOT STAND SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION.

STORM SEWER MATERIALS SHALL BE AS SPECIFIED IN THE IDOT STAND SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION.

SANITARY SERVICE

THE CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIALS, TOOLS, AND EQUIPMENT NECESSARY TO CONSTRUCT THE SANITARY SEWER SYSTEM AS DETAILED ON THE PLANS.

WATER SERVICE LINES SHALL BE PROTECTED FROM SANITARY SEWER, STORM SEWERS, SEWER SERVICE CONNECTIONS AND DRAINS IN ACCORDANCE WITH TITLE 35, ENVIRONMENTAL PROTECTION AGENCY SUBTITLE F; PUBLIC WATER SUPPLIES, CHAPTER 11; ENVIRONMENTAL PROTECTION AGENCY, PARTS 651-654 TECHNICAL POLICY STATEMENTS, SECTION 653.119.

SANITARY SEWER MAIN CONSTRUCTION SHALL BE IN STRICT ACCORDANCE WITH THE "STANDARD SPECIFICATIONS FOR WATER & SEWER MAIN CONSTRUCTION IN ILLINOIS" 8TH EDITION 2020 EXCEPT WHERE NOTED OTHERWISE ON THE PLANS OR IN THE SPECIFICATIONS.

BEDDING, HAUNCHING, AND INITIAL BACKFILL SHALL BE PLACED IN ACCORDANCE WITH ASTM STANDARD D2321 AND SHALL BE CONSIDERED INCIDENTAL TO THE SANITARY SEWER. CLASS 1A MATERIAL, CRUSHED STONE OR CRUSHED GRAVEL, GRADATION (CA-7), SHALL BE USED FOR BEDDING, HAUNCHING, AND INITIAL BACKFILL.

TRENCH BACKFILL SHALL BE REQUIRED FOR ALL PIPES THAT ARE CONSTRUCTED UNDER OR WITHIN TWO (2) FEET OF THE EDGE OF EXISTING OR PROPOSED PAVEMENTS, SIDEWALKS, CURB AND GUTTERS, OR OTHER PAVED SURFACES.

EXCAVATED MATERIAL SHALL BE USED FOR FINAL BACKFILL FOR ALL AREAS NOT DESIGNATED FOR TRENCH BACKFILL.

TRENCH BACKFILL SHALL BE IN ACCORDANCE WITH SECTION 208 OF THE IDOT STANDARD SPECIFICATIONS.

SANITARY SEWER PIPE MATERIAL

SANITARY SEWER PIPE SHALL BE POLYVINYL CHLORIDE (PVC) TYPE SDR-26 CONFORMING TO ASTM D-3034 WITH FLEXIBLE ELASTOMERIC JOINTS CONFORMING

WATER SERVICE

TO ASTM D-3212.

THE CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIALS, TOOLS, AND EQUIPMENT NECESSARY TO CONSTRUCT THE WATER MAIN AS DETAILED ON THE PLANS AND IN THE SPECIFICATIONS.

ALL WATER LINES SHALL HAVE A MINIMUM COVER OF FIVE FEET (5.5').

WATER LINES SHALL BE PROTECTED FROM SANITARY SEWERS, STORM SEWERS, SEWER SERVICE CONNECTIONS AND DRAINS IN ACCORDANCE WITH TITLE 35, ENVIRONMENTAL PROTECTION AGENCY SUBTITLE F; PUBLIC WATER SUPPLIES, CHAPTER 11; ENVIRONMENTAL PROTECTION AGENCY, PARTS 651-654 TECHNICAL POLICY STATEMENTS, SECTION 653.119.

WATER LINES SHALL BE SEPARATED FROM SEPTIC TANKS, LEACH DISPOSAL FIELDS AND SEEPAGE BEDS BY A MINIMUM DISTANCE OF TWENTY—FIVE (25) FEET.

WATER LINE CONSTRUCTION SHALL BE IN STRICT ACCORDANCE WITH THE "STANDARD SPECIFICATIONS FOR WATER & SEWER MAIN CONSTRUCTION IN ILLINOIS" 8TH EDITION 2020 EXCEPT WHERE NOTED OTHERWISE ON THE PLANS OR IN THE SPECIFICATIONS.

BEDDING, HAUNCHING, AND INITIAL BACKFILL SHALL BE SUPPLIED BY THE CONTRACTOR AND PLACED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS AND SHALL BE CONSIDERED INCIDENTAL TO THE WATER MAIN/SERVICE INSTALLATION. CLASS 1A MATERIAL, CRUSHED STONE OR CRUSHED GRAVEL, GRADATION (CA 7), SHALL BE USED FOR BEDDING, HAUNCHING, AND INITIAL

TRENCH BACKFILL SHALL BE REQUIRED FOR FINAL BACKFILL FOR ALL WATER MAINS/SERVICES THAT ARE CONSTRUCTED UNDER OR WITHIN TWO (2) FEET OF THE EDGE OF EXISTING OR PROPOSED PAVEMENTS, SIDEWALKS, CURB AND GUTTERS, OR OTHER PAVED SURFACES. IN ALL OTHER LOCATIONS, FINAL BACKFILL SHALL CONSIST OF EXCAVATED MATERIAL. ALL PVC TO BE INSTALLED WITH TRACER WIRE.

TRENCH BACKFILL SHALL BE IN ACCORDANCE WITH SECTION 208 OF THE IDOT STANDARD SPECIFICATIONS.

WATER LINE PIPE MATERIAL

MATERIAL FOR THE 6" WATER SERVICE SHALL BE C-900 PVC PIPE, WHICH SHALL MEET OR EXCEED THE PERFORMANCE REQUIREMENTS OF ASTM D2241.

JOINTS FOR THE C-900 PVC PIPE SHALL MEET ASTM F477 AND D3139.

WATER LINE FITTINGS

RETAINER GLANDS OR ANCHOR COUPLINGS ("MEGA-LUG" OR APPROVED EQUAL) SHALL BE USED WITH ALL MECHANICAL JOINT CONNECTIONS AND SHALL BE DESIGNED FOR INSTALLATION ON THE TYPE OF WATER MAIN SPECIFIED. ALL RETAINER GLANDS SHALL HAVE ONE (1) RETAINER BOLT PER FLANGE BOLT.

SOLID CONCRETE THRUST BLOCKS SHALL BE SUPPLIED BY THE CONTRACTOR AND INSTALLED AT ALL FITTINGS. THRUST BLOCKING SHALL BE POSITIONED AT LOCATIONS AS SHOWN ON THE STANDARD SPECIFICATIONS, TYPICAL THRUST BLOCK INSTALLATIONS STANDARD DETAIL.

WATER LINE TESTING AND DISINFECTING

THE 6" WATER SERVICE SHALL BE DISINFECTED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS. THE CONTRACTOR SHALL SUPPLY ALL MATERIALS, (INCLUDING INJECTION AND TESTING POINT WHIPS), EQUIPMENT, AND LABOR NECESSARY FOR TESTING AND DISINFECTING THE WATER LINE AND SHALL BE RESPONSIBLE FOR COLLECTING WATER SAMPLES AND HAVING BACTERIOLOGICAL TESTING PERFORMED AS REQUIRED BY THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY. THE CONTRACTOR SHALL FURNISH ALL TEST RESULTS NECESSARY TO THE ENGINEER PRIOR TO PLACING THE WATER LINE IN SERVICE.

THE CONTRACTOR IS RESPONSIBLE FOR THE COORDINATION OF TESTING AND DISINFECTING THE NEW WATER LINE AND SHALL NOTIFY THE OWNER AND OPERATOR A MINIMUM OF TWENTY FOUR (24) HOURS IN ADVANCE OF THE REQUESTED TIME FOR OBSERVATION OF THE PRESSURE AND LEAKAGE TEST. ALL TESTING SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS.

<u>PAVING</u>

AGGREGATE BASE COURSE

THIS WORK SHALL BE DONE IN ACCORDANCE WITH THE APPLICABLE PARTS OF SECTION 406 OF THE ROADWAY SPECIFICATIONS.

PRIOR TO THE PLACEMENT OF THE HOT-MIX ASPHALT BINDER COURSE, THE AGGREGATE BASE SHALL BE COMPACTED TO THE SATISFACTION OF THE ENGINEER. THE CONTRACTOR SHALL PROVIDE A FULLY LOADED SEMI TO PERFORM A "PROOF" ROLL OVER THE ENTIRE AGGREGATE BASE. THE "PROOF" ROLL SHALL BE WITNESSED BY THE ENGINEER AND/OR OWNER.

ALL LOOSE AGGREGATE MATERIAL THAT APPEARS ON THE SURFACE OF THE BASE SHALL BE REMOVED BY THE CONTRACTOR PRIOR TO THE APPLICATION OF THE BITUMINOUS MATERIALS PRIME COAT. ANY ADDITIONAL HOT—MIX ASPHALT BINDER COURSE REQUIRED TO FILL THESE AREAS SHALL NOT BE PAID FOR BUT SHALL BE AT THE CONTRACTOR'S EXPENSE.

AGGREGATE (PRIME COAT) WILL NOT BE REQUIRED. THE CONTRACTOR SHALL BE REQUIRED TO PLACE TYPE III BARRICADES AT THE ENDS OF THE PROJECT AFTER BITUMINOUS MATERIALS (PRIME COAT) HAVE BEEN APPLIED. THE SS-1H PRIME COAT SHALL BE APPLIED A MINIMUM OF 24 HOURS IN ADVANCE OF THE PAVING OPERATIONS AT A RATE OF 0.25 TO 0.50 GALLONS PER SQUARE YARD.

A BITUMINOUS TACK COAT SHALL BE PLACED BETWEEN THE BINDER COURSE AND SURFACE COURSE. THE TACK COAT SHALL CONSIST OF SS-1 PRIME AND APPLIED AT A RATE OF 0.05 TO 0.10 GALLONS PER SQUARE YARD. THE TACK COAT SHALL BE ALLOWED TO CURE SUFFICIENTLY SO THAT TRACKING OF THE SS-1 DOES NOT OCCUR.

THE OWNER RESERVES THE OPTION OF PLACING THE HMA SURFACE COURSE IN THE NEXT CONSTRUCTION SEASON.

AREAS THAT WILL RECEIVE PCC SIDEWALK OR CURB AND GUTTER SHALL HAVE AGGREGATE BASE COURSE INSTALLED IN ACCORDANCE WITH DETAILS SHOWN ON THE PLANS. PREPARE AREAS FOR BASE COURSE IN ACCORDANCE WITH SECTION 301 OF THE IDOT STANDARD SPECIFICATIONS. AGGREGATE BASE COURSE TYPE B SHALL BE INSTALLED IN ACCORDANCE WITH SECTION 351 OF THE IDOT STANDARD SPECIFICATIONS. MATERIAL ALLOWED SHALL BE EITHER IDOT GRADATION CA-6 OR CA-10.

PORTLAND CEMENT CONCRETE SIDEWALK

CONSTRUCT REINFORCED PORTLAND CEMENT CONCRETE PAVEMENT IN ACCORDANCE WITH SECTION 424 OF THE IDOT STANDARD SPECIFICATIONS AND THE SIDEWALK DETAILS SHOWN ON THE PLANS. REFER TO ARCHITECTURAL PLANS FOR JOINT DETAILS.

COMBINATION CONCRETE CURB AND GUTTER

CONSTRUCT REINFORCED COMBINATION CONCRETE CURB AND GUTTER IN ACCORDANCE WITH SECTION 606 OF THE IDOT STANDARD SPECIFICATIONS AND THE DETAILS SHOWN ON THE PLANS.

<u>EARTHWORK</u>

THE CONTRACTOR SHALL STRIP ALL TOPSOIL ON THE SITE THAT IS UNDER THE BUILDING FOOTPRINT AND PAVEMENT AREAS. THE CONTRACTOR SHALL STOCK PILE A SUFFICIENT AMOUNT OF TOPSOIL TO PROVIDE FOR A MINIMUM TOPSOIL DEPTH OF 6" FOR THE AREAS TO BE SEEDED. THE CONTRACTOR SHALL BE RESPONSIBLE TO PLACE THE TOPSOIL ON THE AREAS TO BE SEEDED AS PART OF THIS WORK. UNSUITABLE MATERIAL SHALL BE DISPOSED OF AT THE DISCRETION OF THE ENGINEER/OWNER.

ANY REMAINING EXCESS EARTH EXCAVATION FROM THE CONSTRUCTION OF THE IMPROVEMENTS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO REMOVE FROM THE JOB SITE.

ALL VEGETATION SHALL BE REMOVED PRIOR TO PLACEMENT OF THE EMBANKMENT MATERIALS.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING FROM THE JOB SITE ALL EXCESS, UNSTABLE AND UNSUITABLE MATERIAL AS A PART OF THIS WORK.

WHEN EARTH EXCAVATION STOCK PILES WILL REMAIN ON THE SITE LONGER THAN ONE WEEK; THE PILES SHALL BE ENCOMPASSED WITH EROSION CONTROL BARRIER FENCE.

THIS WORK INCLUDES ALL EARTH EXCAVATION, AND CONSTRUCTION OF EMBANKMENT ON THE SITE.

IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO INVESTIGATE THE SITE TO DETERMINE THE AMOUNT OF EARTH EXCAVATION THAT WILL BE REQUIRED TO CONSTRUCT THE SITE TO THE LINES AND GRADES AS SHOWN ON THE PLANS.

EROSION CONTROL

SOIL EROSION AND SEDIMENT CONTROL SHALL BE IN ACCORDANCE WITH APPLICABLE PORTIONS OF THE ILLINOIS URBAN MANUAL, UPDATED 2013.

PROVISIONS SHALL BE MADE TO MINIMIZE THE TRANSPORT OF SEDIMENT BY VEHICULAR TRAFFIC FROM THE CONSTRUCTION SITE. ALL PUBLIC STREETS SHALL BE CLEANED DAILY OR AS NECESSARY TO KEEP CLEAN OF SEDIMENT AND DEBRIS CAUSED BY CONSTRUCTION ACTIVITIES. ADJACENT PROPERTIES SHALL BE PROTECTED FROM SEDIMENT DEPOSITION BY USE OF AN ACCEPTABLE EROSION CONTROL PRACTICE SUCH AS VEGETATIVE BUFFER STRIPS OR SEDIMENT BARRIERS. SHOULD AN EROSION CONTROL ITEM NOT BE INCLUDED AS A BID ITEM OR NOT BE ADDRESSED PER SPECIAL PROVISION AND BE DETERMINED NECESSARY BY THE ENGINEER, THOSE ITEMS WILL BE PAID FOR AT A PRE—APPROVED UNIT PRICE.

IDOT HIGHWAY STANDARDS

TEMPORARY EROSION CONTROL
LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
TRAFFIC CONTROL DEVICES
MANHOLE TYPE A 4' DIAMETER
TYPE 1 FRAME & GRATE
PERPENDICULAR CURB RAMPS FOR SIDEWALKS

280001-07
701301-04
701301-04
701301-05
701901-08
604001-05

FIRE
PROTECTION
DISTRICT



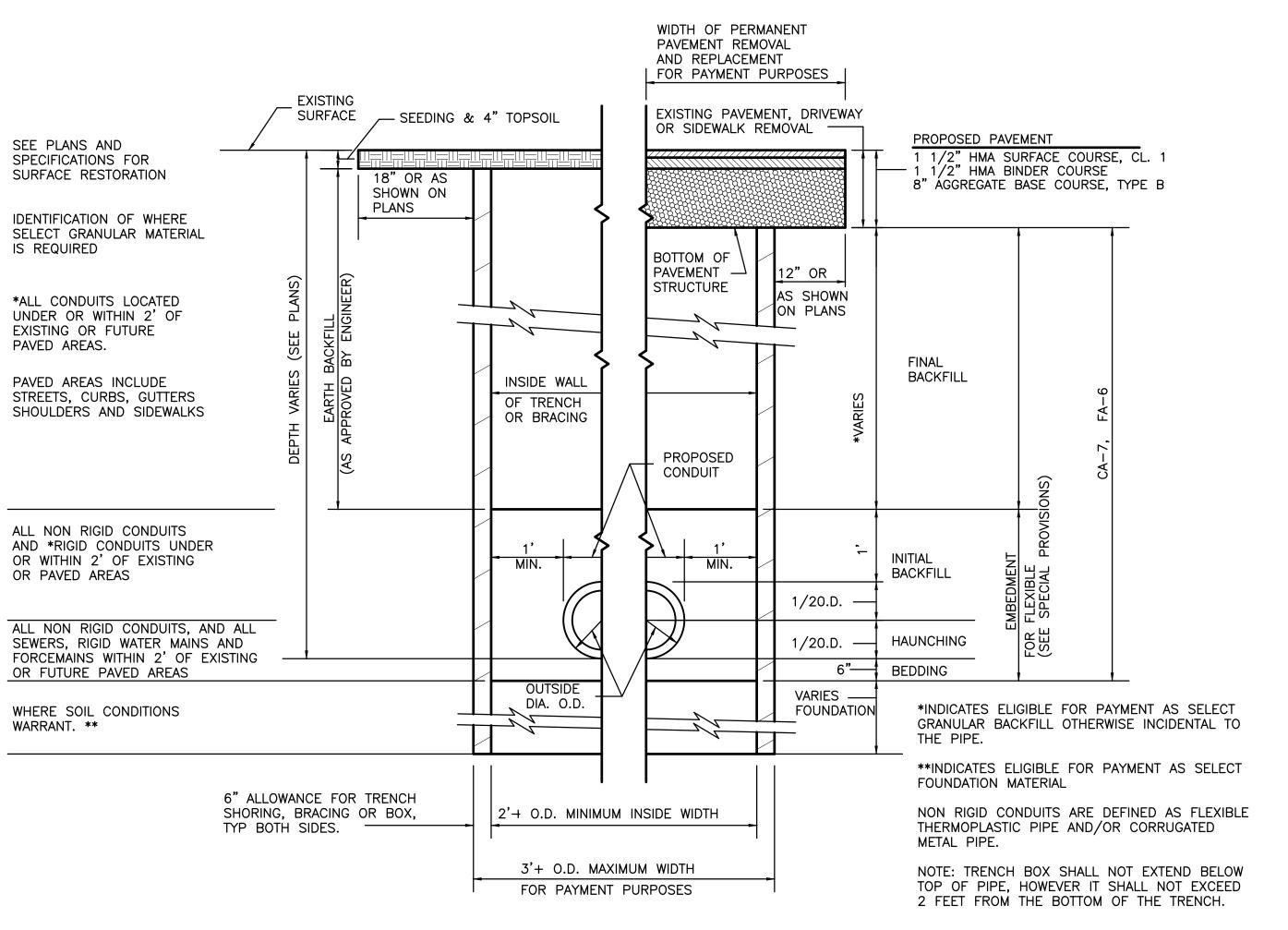


223 West Jackson Boulevard, Suite 1200 Chicago, Illinois 60606 (312) 253-3400

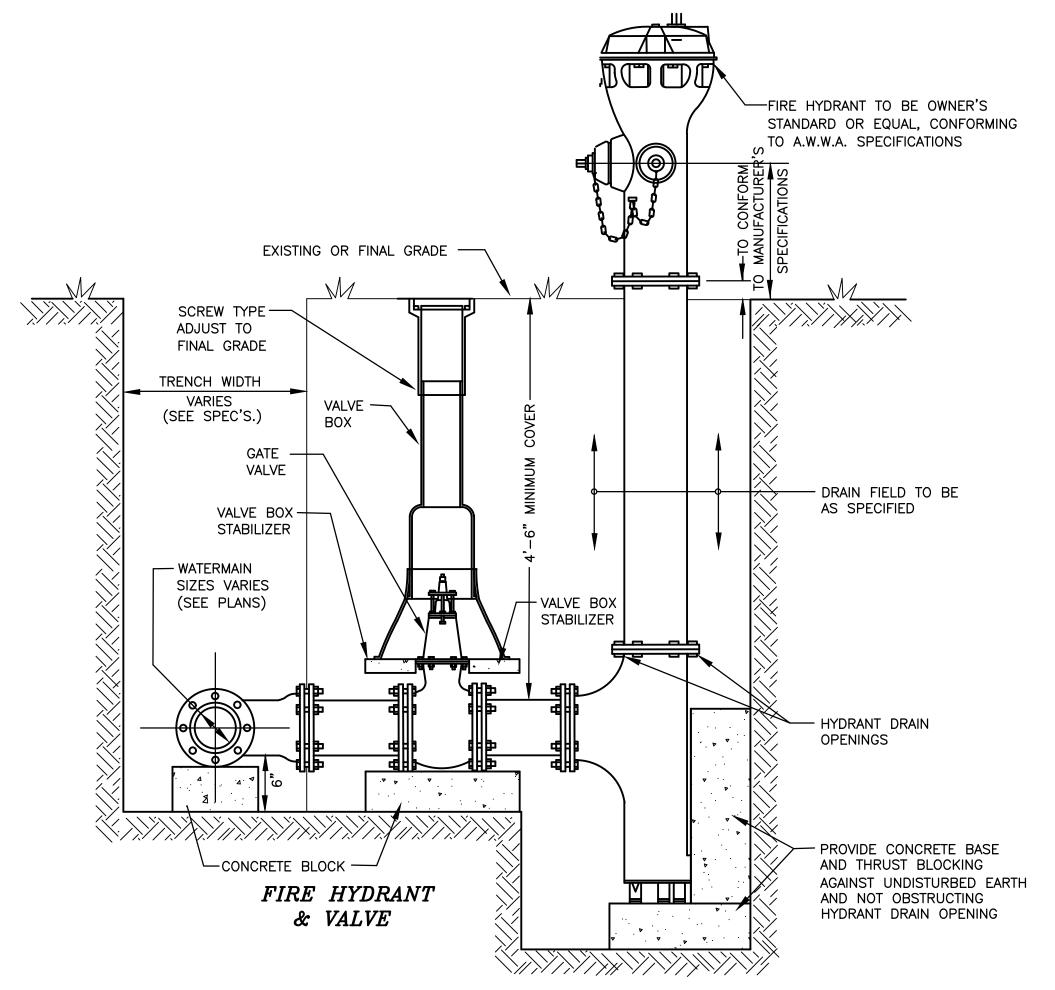
GENERAL NOTES

... C-200

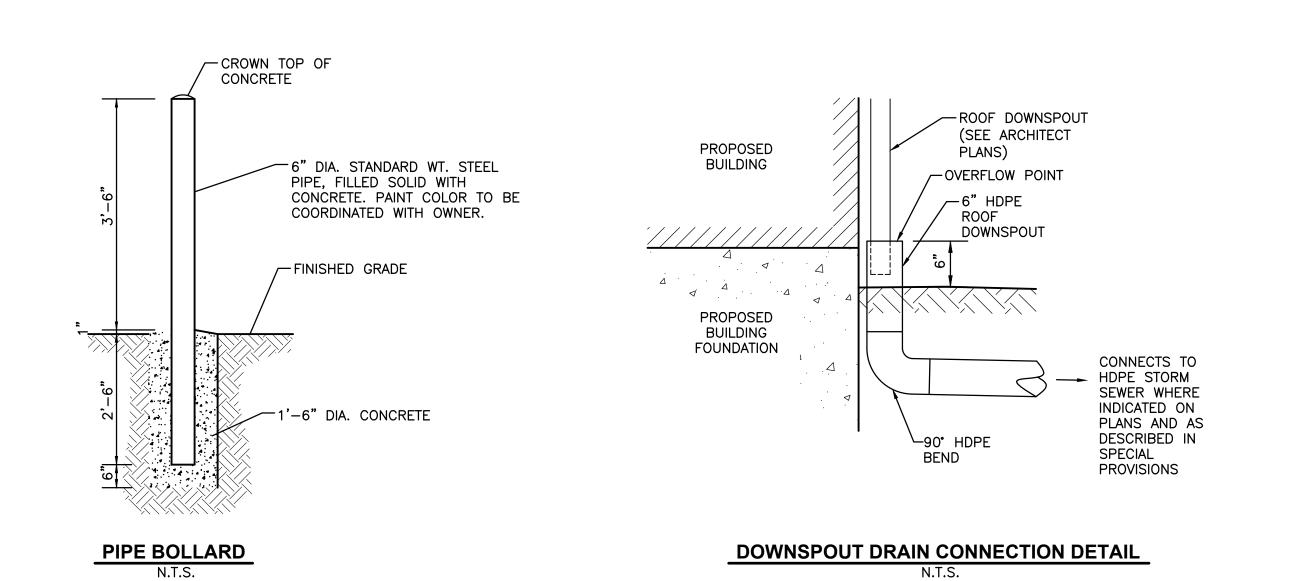
THESE PLANS ARE PREPARED FOR THE CONDITIONAL USE APPLICATION AND ARE PRELIMINARY IN NATURE. FINAL ENGINEERING PLANS WILL BE PREPARED UPON APPROVAL OF THE CONDITIONAL USE.

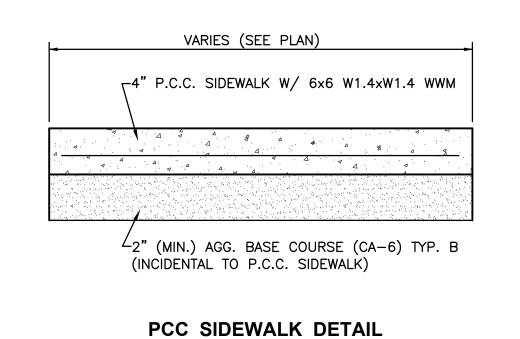


TYPICAL TRENCH DETAIL

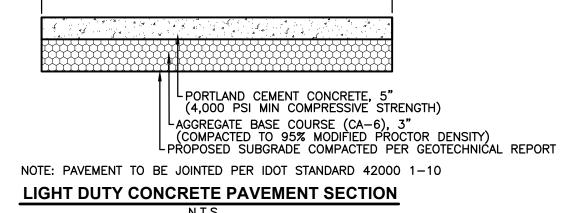


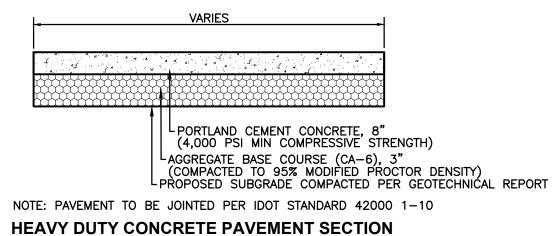


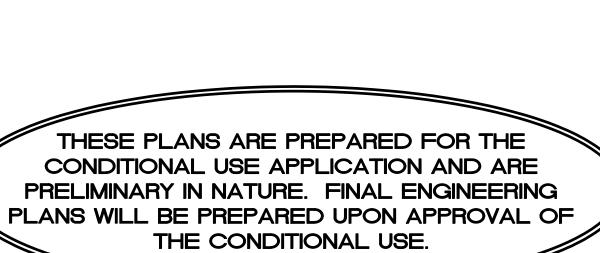


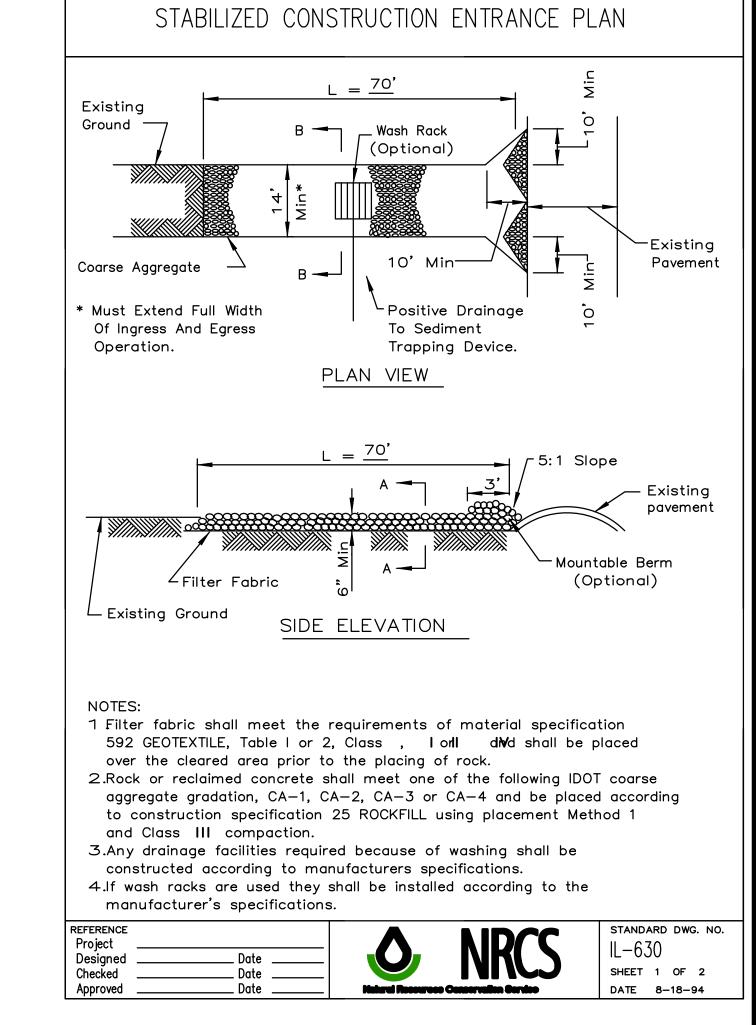


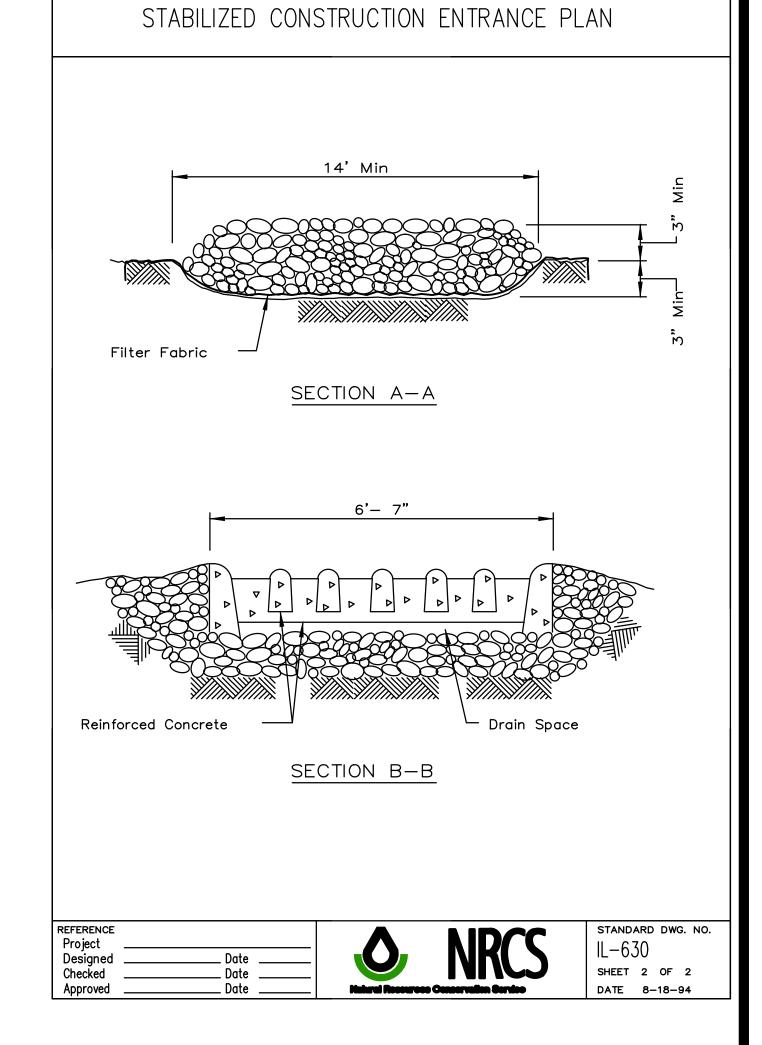
N.T.S.

















223 West Jackson Boulevard, Suite 1200 Chicago, Illinois 60606 (312) 253-3400

Distric

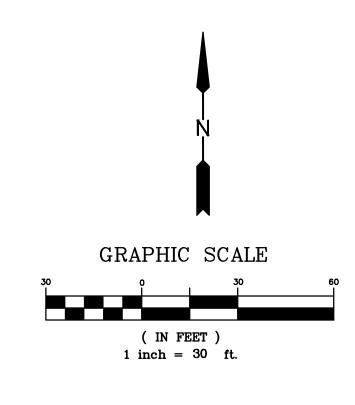
DETAILS

CHAMLIN & ASSOCIATES JOB NO.: 33026.00

BENCHMARK #1: NUMBER BOLT ON FIRE

HYDRANT EL. = 550.38BENCHMARK #2: NUMBER BOLT ON FIRE HYDRANT

EL. = 551.24







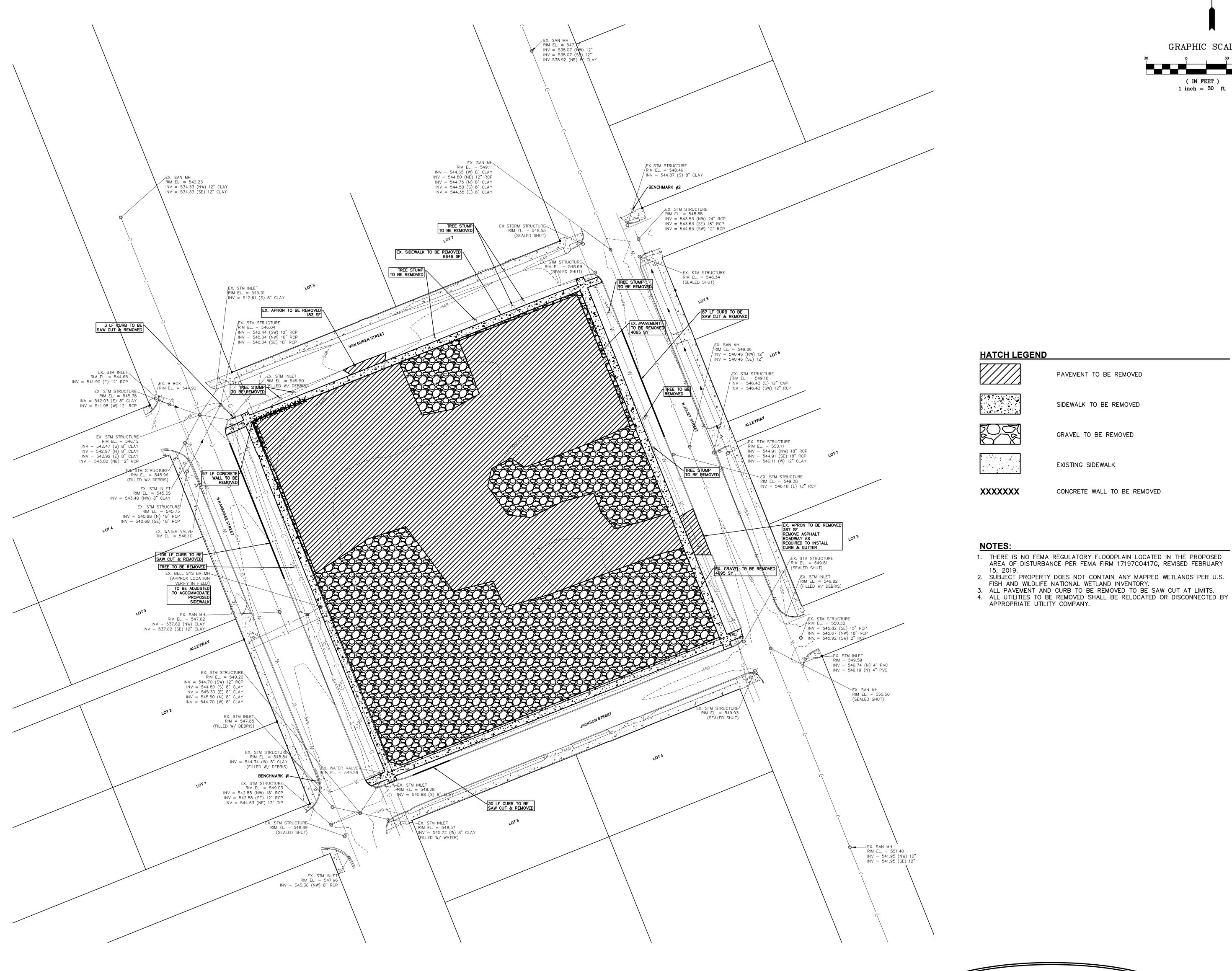


Chicago, Illinois 60606

223 West Jackson Boulevard, Suite 1200 (312) 253-3400

Wilmington

EXISTING CONDITIONS & DEMOLITION PLAN

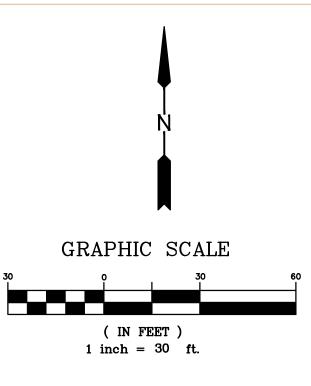


THESE PLANS ARE PREPARED FOR THE CONDITIONAL USE APPLICATION AND ARE PRELIMINARY IN NATURE. FINAL ENGINEERING PLANS WILL BE PREPARED UPON APPROVAL OF THE CONDITIONAL USE.

BENCHMARKS

BENCHMARK #1 NUMBER BOLT ON FIRE HYDRANT AT THE NORTHWEST CORNER OF THE INTERSECTION OF JACKSON AND KANKAKEE STREET, SOUTHWEST OF SITE ELEVATION=550.38

BENCHMARK #2 NUMBER BOLT OF FIRE HYDRANT AT THE NOMBER BOLT OF FIRE HYDRANT AT THE NORTHEAST CORNER OF THE INTERSECTION OF VAN BUREN STREET AND JOLIET STREET, NORTHEAST OF SITE. ELEVATION=551.24







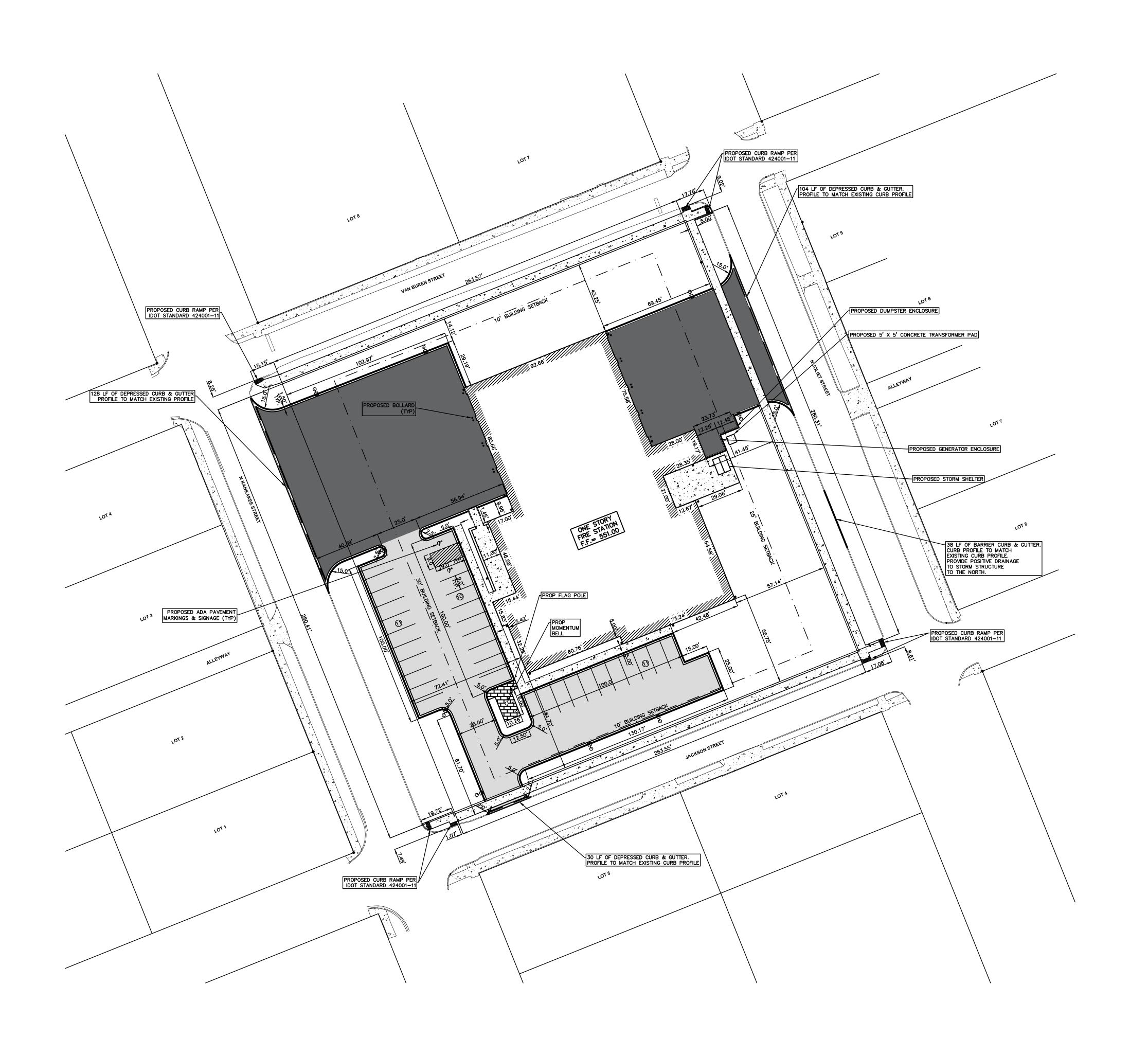


223 West Jackson Boulevard, Suite 1200

Chicago, Illinois 60606 (312) 253-3400

Wilmington 201 N. Kankak

GEOMETRY PLAN



SITE DATA

TOTAL SITE AREA: 1.696 ACRES EXISTING ZONING: R-1 EXISTING IMPERVIOUS AREA: 1.68 AC (99%)

PROPOSED IMPERVIOUS AREA: 1.23 AC (73%)

PARKING SUMMARY

- PROPOSED STANDARD PARKING STALLS: 30 PROPOSED ADA PARKING STALLS: 2
- TOTAL PARKING STALLS: 32 MAXIMUM NUMBER OF EMPLOYEES PER SHIFT: 15
- **HATCH LEGEND**

PROPOSED LIGHT DUTY PAVEMENT

PROPOSED HEAVY DUTY PAVEMENT

PROPOSED CONCRETE SIDEWALK

PROPOSED BRICK WALKWAY

- SEE ARCHITECTURAL PLANS FOR EXACT BUILDING DIMENSIONS.
 ALL DIMENSIONS ARE TO BACK OF CURB UNLESS NOTED OTHERWISE
 ALL CURB TO BE B-6.12 UNLESS NOTED OTHERWISE.
 MAXIMUM CROSS SLOPE ON SIDEWALKS TO BE 2%.
 PROPOSED HANDICAP PARKING STALLS TO HAVE SIGNS & PAVEMENT MARKINGS THAT MEET ADA REQUIREMENTS.

THESE PLANS ARE PREPARED FOR THE CONDITIONAL USE APPLICATION AND ARE PRELIMINARY IN NATURE. FINAL ENGINEERING PLANS WILL BE PREPARED UPON APPROVAL OF THE CONDITIONAL USE.

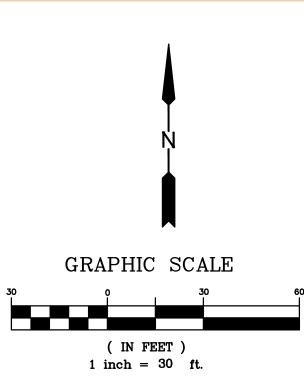


BENCHMARKS

BENCHMARK #1:
NUMBER BOLT ON FIRE
HYDRANT
EL. = 550.38

BENCHMARK #2:
NUMBER BOLT ON FIRE

HYDRANT EL. = 551.24









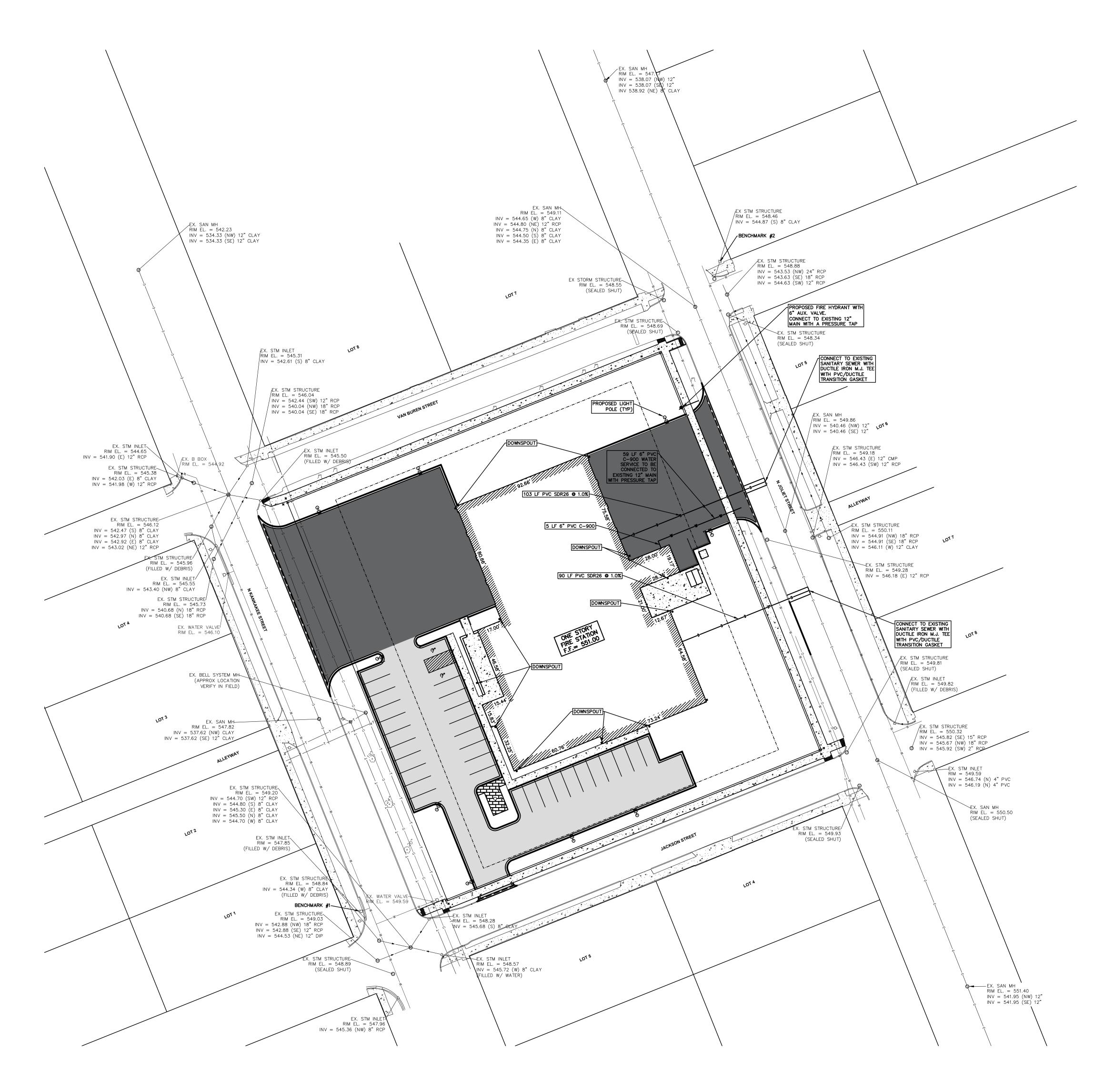
223 West Jackson Boulevard, Suite 1200 Chicago, Illinois 60606 (312) 253-3400

w Fire Station

Distr 60481

UTILITY PLAN

C-600



NOTES

- 1. SEE ARCHITECTURAL PLANS FOR EXACT BUILDING DIMENSIONS, UTILITY CONNECTION POINTS AT THE BUILDING AND TRIPLE BASIN LOCATION AND
- DETAIL.

 2. ROOF DRAINS/DOWN SPOUTS TO BE CONNECTED TO THE SITE STORM SEWER.

 3. SEE PHOTOMETRIC PLAN BY 2010 ENGINEERING GROUP, LLC (DRAWING NO. 1813—B—1) FOR SITE LIGHTING SPECIFICATIONS, POLE FOUNDATION AND CONDUIT LOCATIONS.
- WATER SERVICE LINE TO BE A MINIMUM OF 5.5' DEEP.
 WATER AND SANITARY SERVICE TO BE INSTALLED PER REQUIREMENTS IN THE STANDARD SPECIFICATIONS FOR WATER AND SEWER CONSTRUCTION IN ILLINOIS (8TH EDITION/2020).

THESE PLANS ARE PREPARED FOR THE CONDITIONAL USE APPLICATION AND ARE

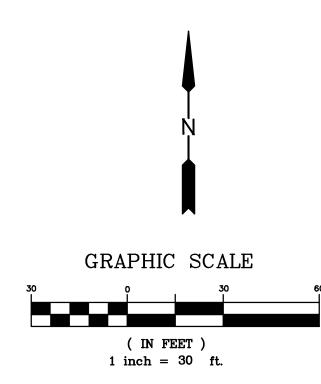
PRELIMINARY IN NATURE. FINAL ENGINEERING
PLANS WILL BE PREPARED UPON APPROVAL OF

THE CONDITIONAL USE.

<u>BENCHMARKS</u>

BENCHMARK #1:
NUMBER BOLT ON FIRE
HYDRANT
EL. = 550.38

BENCHMARK #2:
NUMBER BOLT ON FIRE
HYDRANT
EL. = 551.24









223 West Jackson Boulevard, Suite 1200 Chicago, Illinois 60606 (312) 253-3400

v Fire Station

mington Fire Protection Distr

OTES:

- 1. THE SITE DOES NOT HAVE ANY REGULATORY FLOODPLAIN PER FEMA FIRM NUMBER 17197C0417G, REVISED FEBRUARY 15, 2019.
- 2. THE SITE DOES NOT HAVE ANY MAPPED WETLANDS PER THE U.S. FISH AND WILDLIFE SERVICES NATIONAL WETLANDS INVENTORY MAP.
- CONTRACTOR TO PROVIDE NECESSARY PROTECTION TO EXISTING UTILITIES. ANY DAMAGE
 TO THE EXISTING UTILITIES WILL BE THE CONTRACTOR'S RESPONSIBILITY TO REPAIR.
 ANY FIELD TILES DISCOVERED DURING EXCAVATION SHALL BE ROUTED AROUND THE AREA
 OF THE PROPOSED WORK.
- 5. CONTRACTOR TO FOLLOW ALL ILLINOIS URBAN MANUAL REQUIREMENTS FOR SEDIMENT AND EROSION CONTROL AS REQUIRED BY THE SCOPE OF WORK.
- MAXIMUM CROSS SLOPES OF PROPOSED SIDEWALKS TO BE 2%.
 IF GROUND DISTURBANCE IS GREATER THAN 1 ACRES, AN IEPA NOTICE OF INTENT IS REQUIRED. CONTRACTOR IS REQUIRED TO KEEP A COPY OF THE STORMWATER POLLUTION
- PREVENTION PLAN ON SITE AT ALL TIMES DURING CONSTRUCTION.

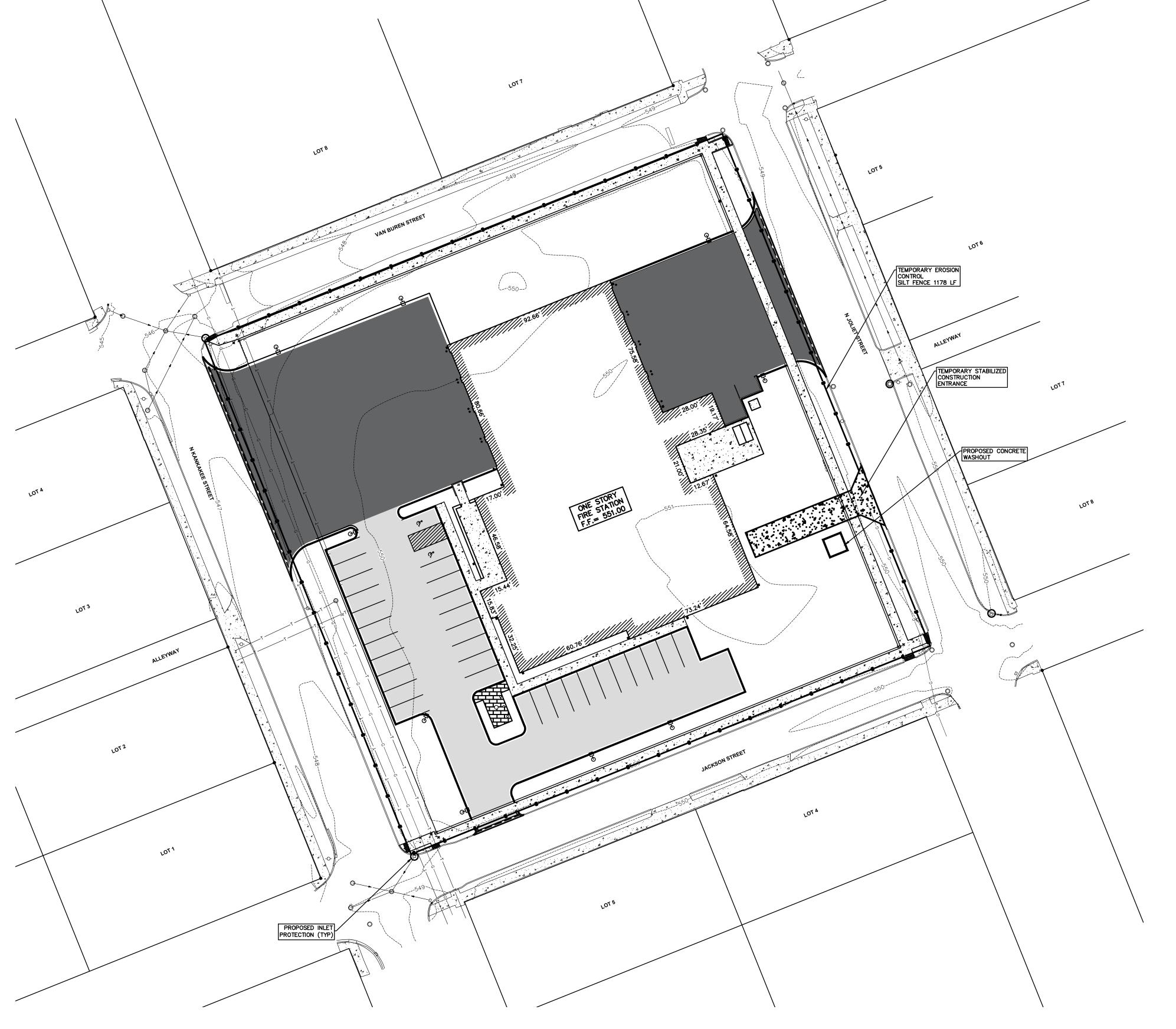
 8. ALL DISTURBED AREAS THAT ARE NOT TO BE PAVED OR LANDSCAPED SHALL BE
- RESTORED WITH 6" OF TOPSOIL, IDOT CLASS 1 SEED AND FERTILIZED.

 9. CONTRACTOR IS RESPONSIBLE TO KEEP OFF—SITE ROADWAYS CLEAN OF SILT AND DEBRIS.
 OFFSITE ROADWAYS SHALL BE CLEANED DAILY OR AS DIRECTED BY MUNICIPAL ENGINEER.

THESE PLANS ARE PREPARED FOR THE CONDITIONAL USE APPLICATION AND ARE PRELIMINARY IN NATURE. FINAL ENGINEERING PLANS WILL BE PREPARED UPON APPROVAL OF THE CONDITIONAL USE.

GRADING & EROSION CONTROL PLAN

₂₃₀₃₄ C-700





Schedul	le								
Symbol	Label	QTY	Manufacturer	Catalog	Description	Number Lamps	Lamp Output	LLF	Input Power
	LCCO	2	Lithonia Lighting	DSX1 LED P1 40K 80CRI LCCO	D-Series Size 1 Area Luminaire P1 Performance Package 4000K CCT 80 CRI Left Corner Cutoff Extreme Backlight Control	1	5114	0.9	50.9
	RCC O	2	Lithonia Lighting	DSX1 LED P1 40K 80CRI RCCO	D-Series Size 1 Area Luminaire P1 Performance Package 4000K CCT 80 CRI Right Corner Cutoff Extreme Backlight Control	1	5114	0.9	50.9
	TFT M HS	1	Lithonia Lighting	DSX1 LED P1 40K 80CRI TFTM HS	D-Series Size 1 Area Luminaire P1 Performance Package 4000K CCT 80 CRI Forward Throw Houseside Shield	1	5971	0.9	50.9015
	LCCO /T4 M/R CCO	2	Lithonia Lighting	[]	[]	1	[]	0.9	152.7
			Lithonia Lighting	DSX1 LED P1 40K 80CRI LCCO	D-Series Size 1 Area Luminaire P1 Performance Package 4000K CCT 80 CRI Left Corner Cutoff Extreme Backlight Control	1	5114	0.9	50.9
			Lithonia Lighting	DSX1 LED P1 40K 80CRI T4M	D-Series Size 1 Area Luminaire P1 Performance Package 4000K CCT 80 CRI Type 4 Medium	1	7072	0.9	50.9
0			Lithonia Lighting	DSX1 LED P1 40K 80CRI RCCO	D-Series Size 1 Area Luminaire P1 Performance Package 4000K CCT 80 CRI Right Corner Cutoff Extreme Backlight Control	1	5114	0.9	50.9
	LDN 6 15L	13	Lithonia Lighting	LDN6 40/15 LO6AR LSS	6IN LDN, 4000K, 1500LM, CLEAR, SEMI- SPECULAR REFLECTOR, CRI80	1	1516	0.9	17.52
	665 BEG A	14	BEGA-US	66 655	5-15/16"DIA. X 7-1/4"H. LED SINGLE SIDED WALL LUMINAIRE ONE LED MODULE WITH ONE 3000K LED ARRAY, CLEAR TEMPERED GLASS LENS WITH ANODIZED ALUMINUM REFLECTOR	1	649	0.9	10.5
	BLC3	2	Lithonia Lighting	DSX1 LED P1 40K 80CRI BLC3	D-Series Size 1 Area Luminaire P1 Performance Package 4000K CCT 80 CRI Type 3 Extreme Backlight Control	1	5068	0.9	50.9

Statistics						
Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
BEYOND SOUTH LINE	+	0.0 fc	0.2 fc	0.0 fc	N/A	N/A
BEYOND WEST LINE	+	0.0 fc	0.2 fc	0.0 fc	N/A	N/A
EAST LOT	+	2.0 fc	6.0 fc	0.0 fc	N/A	N/A
PROP LINE	+	0.1 fc	0.4 fc	0.0 fc	N/A	N/A
WEST LOT	+	2.0 fc	12.3 fc	0.0 fc	N/A	N/A
BEYOND NORTH LINE	+	0.0 fc	0.2 fc	0.0 fc	N/A	N/A

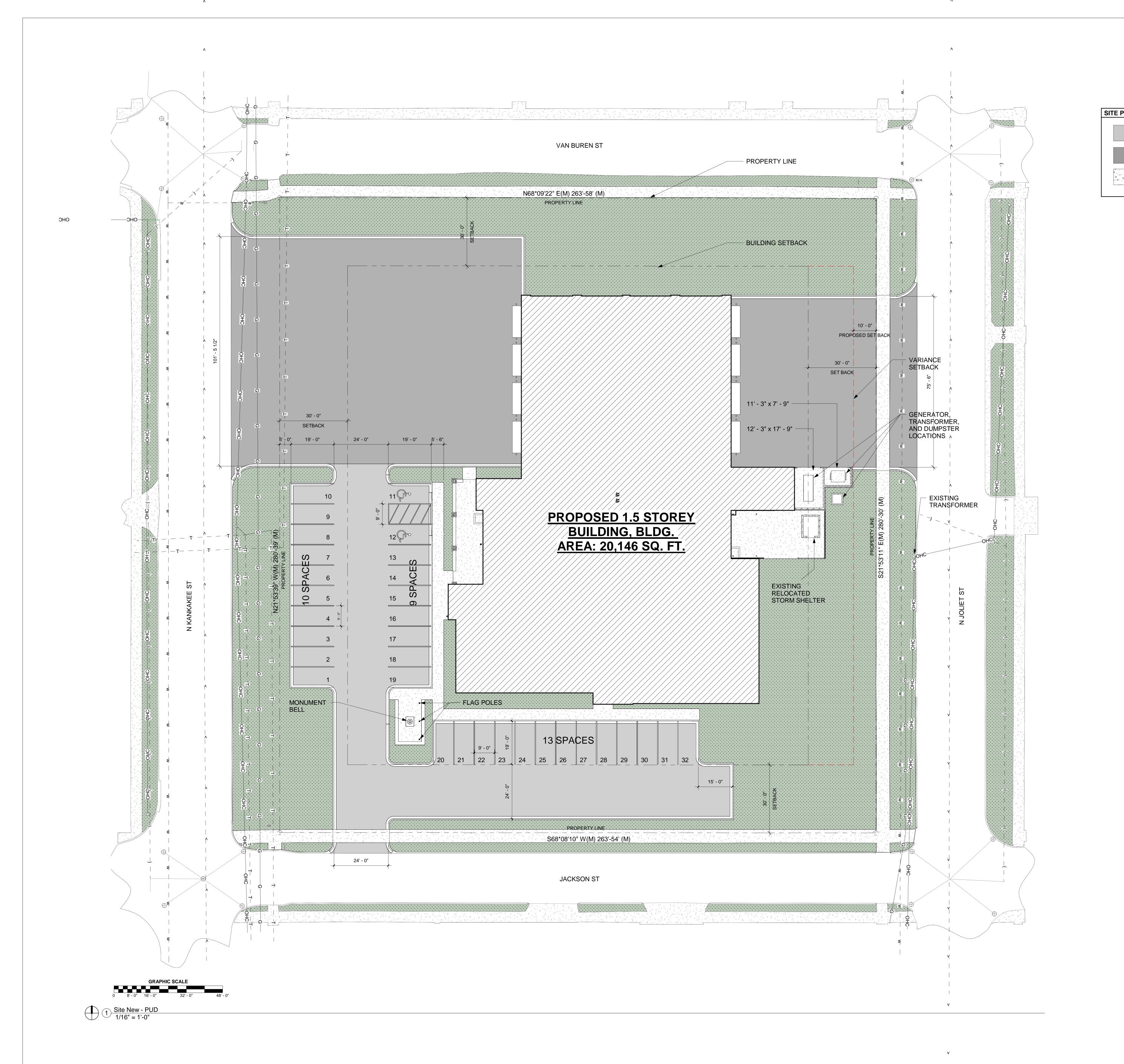
Willmington Fire Station Site Photometrics

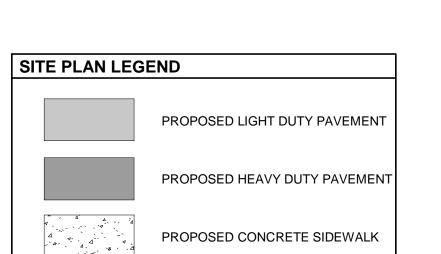
Designer
RMC
Date
11/16/2023
Scale
Not to Scale
Drawing No.
1813-B-1
Summary



C:\Users\m.francisco\Documents\Wilmington Fire Station 1_NEW_m.francisco.rvt











architecture + interiors 223 West Jackson Boulevard, Suite 1200 Chicago, Illinois 60606 (312) 253-3400

Architectural Site Plan







architecture + interiors

223 West Jackson Boulevard, Suite 1200 Chicago, Illinois 60606 (312) 253-3400

Zoning

Architectural Building **Elevations**

COPYRIGHT 2023, STUDIO GC, INC.







architecture + interiors 223 West Jackson Boulevard, Suite 1200 Chicago, Illinois 60606 (312) 253-3400

• 11.15.2023 Zoning

Architectural Building **Elevations**













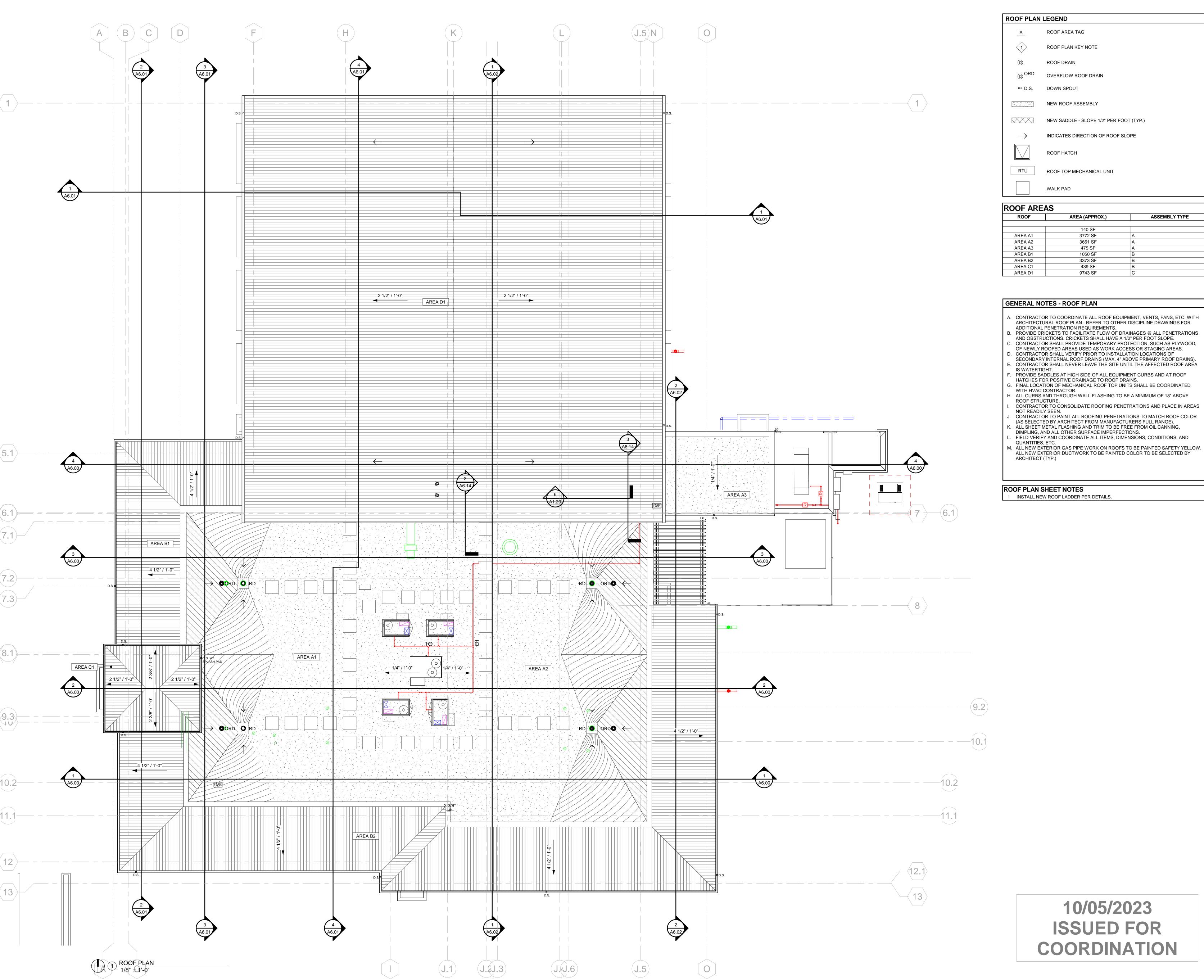






architecture + interiors 223 West Jackson Boulevard, Suite 1200 Chicago, Illinois 60606 (312) 253-3400

Building Perspective



C:\Users\m.francisco\Documents\Wilmington Fire Station 1_NEW_m.francisco.rvt





STUDIO GC

architecture + interiors

Chicago, Illinois 60606

(312) 253-3400

223 West Jackson Boulevard, Suite 1200

• 25% Review Set • 10.16.2023 • 60% Review Set • 10.30.2023

Roof Plan



D-Series Size 1 LED Area Luminaire













Specifications

EPA: $0.69 \text{ ft}^2 \\ (0.06 \text{ m}^2)$

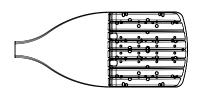
Length: 32./1" (83.1 cm)
14.26"

Width: 14.26" (36.2 cm)

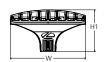
Height H1: 7.88"

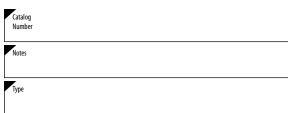
Height H1: 7.88" (20.0 cm)
Height H2: 2.73"

Weight: 34 lbs (15.4 kg)









Hit the Tab key or mouse over the page to see all interactive element:

Introduction

The modern styling of the D-Series features a highly refined aesthetic that blends seamlessly with its environment. The D-Series offers the benefits of the latest in LED technology into a high performance, high efficacy, long-life luminaire.

The photometric performance results in sites with excellent uniformity, greater pole spacing and lower power density. D-Series outstanding photometry aids in reducing the number of poles required in area lighting applications with typical energy savings of 65% and expected service life of over 100,000 hours.

Ordering Information

(6.9 cm)

EXAMPLE: DSX1 LED P7 40K 70CRI T3M MVOLT SPA NLTAIR2 PIRHN DDBXD

DSX1 LED						
Series	LEDs	Color temperature ²	Color Rendering Index ²	Distribution	Voltage	Mounting
DSX1 LED	Forward optics P1 P6 P2 P7 P3 P8 P4 P9 P5 Rotated optics P101 P121 P111 P131	(this section 70CRI only) 30K 3000K 40K 4000K 50K 5000K (this section 80CRI only, extended lead times apply) 27K 2700K 30K 3000K 35K 3500K 40K 4000K 50K 5000K	70CRI 70CRI 70CRI 80CRI 80CRI 80CRI 80CRI 80CRI 80CRI	AFR Automotive front row T1S Type I short T2M Type II medium T3M Type III medium T3LG Type III low glare 3 T4M Type IV medium T4LG Type IV low glare 3 TFTM Forward throw medium T4CO Right corner cutoff 3 RCCO Right corner cutoff 3	MVOLT (120V-277V) ⁴ HVOLT (347V-480V) ^{5,6} XVOLT (277V - 480V) ^{7,8} 120 ^{16, 26} 208 ^{16, 26} 240 ^{16, 26} 277 ^{16, 26} 347 ^{16, 26} 480 ^{16, 26}	Shipped included SPA Square pole mounting (#8 drilling) RPA Round pole mounting (#8 drilling) SPAS Square pole mounting #5 drilling 9 RPAS Round pole mounting #5 drilling 9 SPA8N Square narrow pole mounting #8 drilling WBA Wall bracket 10 MA Mast arm adapter (mounts on 2 3/8" OD horizontal tenon)

Control options	,		Other optic	ons	Finish (requ	ired)
Shipped installed NLTAIR2 PIRHN nLight AIR gen 2 enabled with bi-level motion / ambient sensor, 8-40' mounting height, ambient sensor enabled at 2fc. 11.12.20,21 PIR High/low, motion/ambient sensor, 8-40' mounting height, ambient sensor enabled at 2fc 13.20,21 PER NEMA twist-lock receptacle only (controls ordered separate) 14 PER5 Five-pin receptacle only (controls ordered separate) 14,21	ordered FAO Field ac BL30 Bi-level BL50 Bi-level DMG 0-10v c fixture control,	pin receptacle only (controls diseparate) ^{14,21} djustable output ^{15,21} switched dimming, 30% ^{16,21} switched dimming, 50% ^{16,21} dimming wires pulled outside (for use with an external, ordered separately) ¹⁷ witching ^{18,19,21}	Shipped in SPD20KV HS L90 R90 CCE HA BAA SF DF Shipped st EGSR	20KV surge protection Houseside shield (black finish standard) ²² Left rotated optics ¹ Right rotated optics ¹ Coastal Construction ²³ 50°C ambient operation ²⁴ Buy America(n) Act Compliant Single fuse (120, 277, 347V) ²⁶ Double fuse (208, 240, 480V) ²⁶	DDBXD DBLXD DNAXD DWHXD DDBTXD DBLBXD DNATXD DWHGXD	Dark Bronze Black Natural Aluminum White Textured dark bronze Textured black Textured natural aluminum Textured white



Ordering Information

Accessories

Ordered and shipped separately

DLL127F 1.5 JU Photocell - SSL twist-lock (120-277V) 25 Photocell - SSL twist-lock (347V) 25 DLL347F 1.5 CUL JU DLL480F 1.5 CUL JU Photocell - SSL twist-lock (480V) 25

DSHORT SBK Shorting cap 25

House-side shield (enter package number 1-13 in DSX1HS P#

DSXRPA (FINISH) Round pole adapter (#8 drilling, specify finish) DSXSPA5 (FINISH) Square pole adapter #5 drilling (specify finish) DSXRPA5 (FINISH) Round pole adapter #5 drilling (specify finish) DSX1EGSR (FINISH) External glare shield (specify finish) DSX1BSDB (FINISH) Bird spike deterrent bracket (specify finish)

NOTES

- Rotated optics available with packages P10, P11, P12 and P13. Must be combined with option L90 or R90.

 30K, 40K, and 50K available in 70CR1 and 80CR1. 27K and 35K only available with 80CR1. Contact Technical Support for other possible combinations.

 T3LG, T4LG, BLC3, BLC4, LCCO, RCCO not available with option HS.

 MVOLT driver operates on any line voltage from 120-277V (50/60 Hz).

- HVOLT driver operates on any line voltage from 347-480V (50/60 Hz).

 HVOLT driver operates on any line voltage from 347-480V (50/60 Hz).

 HVOLT not available with package P1 and P10 when combined with option NLTAIR2 PIRHN or option PIR.

 XVOLT operates with any voltage between 277V and 480V (50/60 Hz).

 XVOLT not available in packages P1 or P10. XVOLT not available with fusing (SF or DF).

 SPA5 and RPA5 for use with #5 drilling only (Not for use with #8 drilling).

 WBA cannot be combined with Type 5 distributions plus photocell (PER).

- NLTAIR2 and PIRHN must be ordered together. For more information on nLight AIR2 visit this link
 NLTAIR2 PIRHN not available with other controls including PIR, PER, PER5, PER7, FAO, BL30, BL50, DMG and DS. NLTAIR2 PIRHN not available with P1 and P10 using HVOLT. NLTAIR2 PIRHN not available with P1 and P10 using XVOLT.
- and P10 using HVOLT. NLTAIR2 PIRHN not available with P1 and P10 using XVOLT.

 PIR not available with NLTAIR2 PIRHN, PER, PERS, PERF, FAO BL30, BL50, DMG and DS. PIR not available with P1 and P10 using HVOLT. PIR not available with P1 and P10 using HVOLT. PIR not available with P1 and P10 using HVOLT. PIR not available with NLTAIR2 PIRHN, PIR, BL30, BL50, FAO, DMG and DS. Photocell ordered and shipped as a separate line item from Acuity Brands Controls. See accessories. Shorting Cap included.

 FAO not available with other dimming control options NLTAIR2 PIRHN, PIR, PERS, PERT, BL30, BL50, DMG and DS.

 BL30 and BL50 are not available with NLTAIR2 PIRHN, PIR, PER, PERS, PERT, FAO, DMG and DS. BL30 or BL50 must specify 120, 277 or 347V. Consult tech support for 208, 240 or 480V.

 MG not available with NLTAIR2 PIRHN, PIR, PER, PERS, PERT, BL30, BL50, FAO and DS.

- DS not available with NLTAIR2 PIRHN, PIR, PER, PER5, PER7, BL30, BL50, FAO and DMG
- DS requires (2) separately switched circuits. DS provides 50/50 fixture operation via (2) different sets of leads using (2) drivers. DS only available with packages P8, P9, P10, P11, P12 and P13.

 Reference Motion Sensor Default Settings table on page 4 to see functionality.

- Reference Controls Options table on page 4.
 HS not available with T3LG, T4LG, BLC3, BLC4, LCCO and RCCO distribution. Also available as a separate accessory; see Accessories information.
- CCE option not available with option BS and EGSR. Contact Technical Support for availability.

 Option HA not available with performance packages P4, P5, P7, P8, P9 and P13.

 Requires luminaire to be specified with PER, PER5 or PER7 option. See Controls Table on page 4.
- Single fuse (SF) requires 120V, 277V, or 347V. Double fuse (DF) requires 208V, 240V or 480V. XVOLT not available with fusing (SF or DF).

Shield Accessories

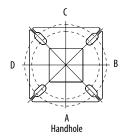


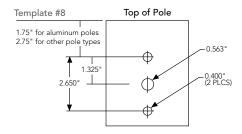
External Glare Shield (EGSR)

House Side Shield (HS)

Drilling

HANDHOLE ORIENTATION





Tenon Mounting Slipfitter

	• •						
Tenon O.D.	Mounting	Single Unit	2 @ 180	2 @ 90	3 @ 90	3 @120	4 @ 90
2-3/8"	RPA	AS3-5 190	AS3-5 280	AS3-5 290	AS3-5 390	AS3-5 320	AS3-5 490
2-7/8"	RPA	AST25-190	AST25-280	AST25-290	AST25-390	AST25-320	AST25-490
4"	RPA	AST35-190	AST35-280	AST35-290	AST35-390	AST35-320	AST35-490

		-=		₹	<u>.</u>	Y	
Mounting Option	Drilling Template	Single	2 @ 180	2 @ 90	3 @ 90	3 @ 120	4@90
Head Location		Side B	Side B & D	Side B & C	Side B, C & D	Round Pole Only	Side A, B, C & D
Drill Nomenclature	#8	DM19AS	DM28AS	DM29AS	DM39AS	DM32AS	DM49AS
			N	linimum Acceptable	Outside Pole Dimer	sion	
SPA	#8	3.5"	3.5"	3.5"	3.5"		3.5"
RPA	#8	3"	3"	3"	3"	3"	3"
SPA5	#5	3"	3"	3"	3"		3"
RPA5	#5	3"	3"	3"	3"	3"	3"
SPA8N	#8	3"	3"	3"	3"		3"

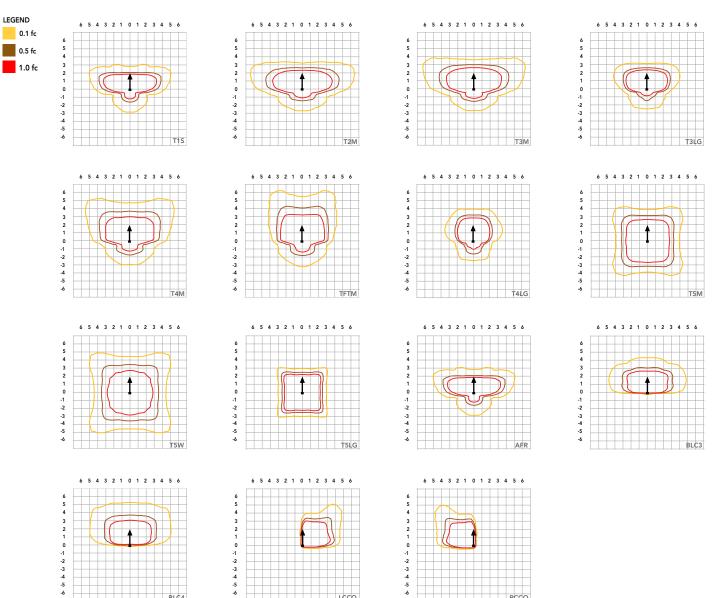
DSX1 Area Luminaire - EPA

*Includes luminaire and integral mounting arm. Other tenons, arms, brackets or other accessories are not included in this EPA data.

Fixture Quantity & Mounting Configuration	Single DM19	2 @ 180 DM28	2 @ 90 DM29	3 @ 90 DM39	3 @ 120 DM32	4 @ 90 DM49
Mounting Type	-		₹	_T_	Y	
DSX1 with SPA	0.69	1.38	1.23	1.54		1.58
DSX1 with SPA5, SPA8N	0.70	1.40	1.30	1.66		1.68
DSX1 with RPA, RPA5	0.70	1.40	1.30	1.66	1.60	1.68
DSX1 with MA	0.83	1.66	1.50	2.09	2.09	2.09



Isofootcandle plots for the DSX1 LED P9 40K 70CRI. Distances are in units of mounting height (25').



Lumen Ambient Temperature (LAT) Multipliers

Use these factors to determine relative lumen output for average ambient temperatures from 0-40°C (32-104°F).

Ambi	Ambient					
0°C	32°F	1.04				
5°C	41°F	1.04				
10°C	50°F	1.03				
15℃	50°F	1.02				
20°C	68°F	1.01				
25°C	77°C	1.00				
30°C	86°F	0.99				
35°C	95°F	0.98				
40°C	104°F	0.97				

Projected LED Lumen Maintenance

Data references the extrapolated performance projections for the platforms noted in a 25°C ambient, based on 10,000 hours of LED testing (tested per IESNA LM-80-08 and projected per IESNA TM-21-11).

To calculate LLF, use the lumen maintenance factor that corresponds to the desired number of operating hours below. For other lumen maintenance values, contact factory.

Operating Hours	Lumen Maintenance Factor
0	1.00
25,000	0.95
50,000	0.90
100.000	0.81

FAO Dimming Settings

FAO Position	% Wattage	% Lumen Output
8	100%	100%
7	93%	95%
6	80%	85%
5	66%	73%
4	54%	61%
3	41%	49%
2	29%	36%
1	15%	20%

*Note: Calculated values are based on original performance package data. When calculating new values for given FAO position, use maximum published values by package listed on specification sheet (input watts and lumens by optic type).

Electrical Load

							Curre	nt (A)		
	Performance Package	LED Count	Drive Current (mA)	Wattage	120V	208V	240V	277V	347V	480V
	P1	30	530	51	0.42	0.24	0.21	0.18	0.15	0.11
	P2	30	700	68	0.56	0.33	0.28	0.24	0.20	0.14
	P3	30	1050	104	0.85	0.49	0.43	0.37	0.29	0.21
	P4	30	1250	125	1.03	0.60	0.52	0.45	0.36	0.26
Forward Optics (Non-Rotated)	P5	30	1400	142	1.15	0.66	0.58	0.50	0.40	0.29
	P6	40	1250	167	1.38	0.79	0.69	0.60	0.48	0.34
	P7	40	1400	188	1.54	0.89	0.77	0.67	0.53	0.38
	P8	60	1100	216	1.80	1.04	0.90	0.78	0.62	0.45
	P9	60	1400	279	2.31	1.33	1.15	1.00	0.80	0.58
	P10	60	530	101	0.84	0.49	0.42	0.37	0.29	0.21
Rotated Optics	P11	60	700	135	1.12	0.65	0.56	0.49	0.39	0.28
(Requires L90 or R90)	P12	60	1050	206	1.72	0.99	0.86	0.74	0.59	0.43
	P13	60	1400	279	2.30	1.33	1.15	1.00	0.79	0.57

LED Color Temperature / Color Rendering Multipliers

	70 CRI		80	OCRI	90CRI			
	Lumen Multiplier	Availability	Lumen Multiplier	Availability	Lumen Multiplier	Availability		
5000K	102%	Standard	92%	Extended lead-time	71%	(see note)		
4000K	100%	Standard	92%	Extended lead-time	67%	(see note)		
3500K	100%	(see note)	90%	Extended lead-time	63%	(see note)		
3000K	96%	Standard	87%	Extended lead-time	61%	(see note)		
2700K	94%	(see note)	85%	Extended lead-time	57%	(see note)		

 ${\sf Note: Some \ LED \ types \ are \ available \ as \ per \ special \ request. \ Contact \ Technical \ Support \ for \ more \ information.}$

Motion Sensor Default Settings

Option	Unoccupied Dimmed Level	High Level (when occupied)	Phototcell Operation	Dwell Time	Ramp-up Time	Dimming Fade Rate
PIR	30%	100%	Enabled @ 2FC	7.5 min	3 sec	5 min
NLTAIR2 PIRHN	30%	100%	Enabled @ 2FC	7.5 min	3 sec	5 min

Controls Options

Nomenclature	Description	Functionality	Primary control device	Notes
FAO	Field adjustable output device installed inside the luminaire; wired to the driver dimming leads.	Allows the luminaire to be manually dimmed, effectively trimming the light output.	FAO device	Cannot be used with other controls options that need the 0-10V leads
DS (not available on DSX0)	Drivers wired independently for 50/50 luminaire operation	The luminaire is wired to two separate circuits, allowing for 50/50 operation.	Independently wired drivers	Requires two separately switched circuits. Consider nLight AIR as a more cost effective alternative.
PER5 or PER7	Twist-lock photocell receptacle	Compatible with standard twist-lock photocells for dusk to dawn operation, or advanced control nodes that provide 0-10V dimming signals.	Twist-lock photocells such as DLL Elite or advanced control nodes such as ROAM.	Pins 4 & 5 to dimming leads on driver, Pins 6 & 7 are capped inside luminaire. Cannot be used with other controls options that need the 0-10V leads.
PIR	Motion sensor with integral photocell. Sensor suitable for 8' to 40' mounting height.	Luminaires dim when no occupancy is detected.	Acuity Controls rSBG	Cannot be used with other controls options that need the 0-10V leads.
NLTAIR2 PIRHN	nLight AIR enabled luminaire for motion sensing, photocell and wireless communication.	Motion and ambient light sensing with group response. Scheduled dimming with motion sensor over-ride when wirelessly connected to the nLight Eclypse.	nLight Air rSBG	nLight AIR sensors can be programmed and commissioned from the ground using the CIAIRity Pro app. Cannot be used with other controls options that need the 0-10V leads.
BL30 or BL50	Integrated bi-level device that allows a second control circuit to switch all light engines to either 30% or 50% light output	BLC device provides input to 0-10V dimming leads on all drivers providing either 100% or dimmed (30% or 50%) control by a secondary circuit	BLC UVOLT1	BLC device is powered off the 0-10V dimming leads, thus can be used with any input voltage from 120 to 480V



Lumen Output

Forward Op	orward Optics																				
							30K					40K					50K				
Performance Package	System Watts	LED Count	Drive Current (mA)	Distribution Type		(300	OK, 70	CRI)			(40	00K, 70	CRI)			(50	00K, 70	CRI)			
ruckuge			Current (IIIA)		Lumens	В	U	G	LPW	Lumens	В	U	G	LPW	Lumens	В	U	G	LPW		
				T1S	7,776	1	0	2	153	8,104	1	0	2	159	8,262	1	0	2	162		
				T2M	7,203	1	0	3	142	7,507	2	0	3	147	7,653	2	0	3	150		
				T3M	7,287	1	0	3	143	7,594	1	0	3	149	7,742	1	0	3	152		
				T3LG	6,509	1	0	1	128	6,783	1	0	1	133	6,916	1	0	1	136		
				T4M	7,395	1	0	3	145	7,707	1	0	3	151	7,857	1	0	3	154		
				T4LG	6,726	1	0	1	132	7,010	1	0	1	138	7,146	1	0	1	140		
D1	F1W	20	520	TFTM	7,446	1	0	3	146	7,760	1	0	3	152	7,912	1	0	3	155		
P1	51W	30	530	T5M T5W	7,609	3	0	2	149 152	7,930	3	0	2	156 158	8,084	3	0	2	159 161		
				T5LG	7,732 7,631	3	0	1	150	8,058 7,953	3	0	1	156	8,215 8,108	3	0	1	159		
				BLC3	5,300	0	0	2	104	5,524	0	0	2	109	5,631	0	0	2	111		
				BLC4	5,474	0	0	3	104	5,705	0	0	3	112	5,816	0	0	3	114		
				RCCO	5,348	0	0	2	105	5,573	0	0	2	109	5,682	0	0	2	112		
				LCCO	5,348	0	0	2	105	5,573	0	0	2	109	5,682	0	0	2	112		
				AFR	7,776	1	0	2	153	8,104	1	0	2	159	8,262	1	0	2	162		
				T1S	9,997	1	0	2	147	10,418	1	0	2	154	10,621	1	0	2	157		
				T2M	9,260	2	0	3	137	9,651	2	0	3	142	9,839	2	0	3	145		
				T3M	9,368	2	0	3	138	9,763	2	0	3	144	9,953	2	0	3	147		
				T3LG	8,368	1	0	2	123	8,721	1	0	2	129	8,891	1	0	2	131		
				T4M	9,507	2	0	3	140	9,909	2	0	3	146	10,102	2	0	3	149		
				T4LG	8,647	1	0	2	128	9,012	1	0	2	133	9,187	1	0	2	136		
				TFTM	9,573	2	0	3	141	9,977	2	0	3	147	10,172	2	0	3	150		
P2	68W	30	30	30	700	T5M	9,782	4	0	2	144	10,195	4	0	2	150	10,393	4	0	2	153
				T5W	9,940	4	0	2	147	10,360	4	0	2	153	10,562	4	0	2	156		
				T5LG	9,810	3	0	1	145	10,224	3	0	1	151	10,423	3	0	1	154		
				BLC3	6,814	0	0	2	101	7,101	0	0	2	105	7,240	0	0	2	107		
				BLC4 RCCO	7,038 6,875	0	0	3	104 101	7,334 7,165	0	0	3	108 106	7,477	0	0	3	110 108		
				LCCO	6,875	1	0	2	101	7,165	1	0	2	106	7,305 7,305	1	0	2	108		
				AFR	9,997	1	0	2	147	10,418	1	0	2	154	10,621	1	0	2	157		
				T1S	14,093	2	0	2	138	14,687	2	0	2	144	14,973	2	0	2	147		
				T2M	13,055	2	0	3	128	13,605	2	0	3	133	13,871	2	0	3	136		
				T3M	13,206	2	0	4	129	13,763	2	0	4	135	14,031	2	0	4	137		
				T3LG	11,797	2	0	2	115	12,294	2	0	2	120	12,534	2	0	2	123		
				T4M	13,403	2	0	4	131	13,968	2	0	4	137	14,241	2	0	4	139		
				T4LG	12,190	2	0	2	119	12,704	2	0	2	124	12,952	2	0	2	127		
				TFTM	13,496	2	0	4	132	14,065	2	0	4	138	14,339	2	0	4	140		
Р3	102W	30	1050	T5M	13,790	4	0	2	135	14,371	4	0	2	141	14,652	4	0	2	143		
				T5W	14,013	4	0	3	137	14,605	4	0	3	143	14,889	4	0	3	146		
				T5LG	13,830	3	0	2	135	14,413	3	0	2	141	14,694	3	0	2	144		
				BLC3	9,606	0	0	2	94	10,011	0	0	2	98	10,206	0	0	2	100		
				BLC4	9,921	0	0	3	97	10,340	0	0	3	101	10,541	0	0	3	103		
				RCCO	9,692	1	0	2	95	10,101	1	0	2	99	10,298	1	0	2	101		
				LCCO	9,692	1	0	2	95	10,101	1	0	2	99	10,298	1	0	2	101		
				AFR	14,093	2	0	2	138	14,687	2	0	2	144	14,973	2	0	2	147		



Lumen Output

Forward Op	orward Optics																		
Performance			Duivo				30K					40K					50K		
Performance Package	System Watts	LED Count	Drive Current (mA)	Distribution Type		(30	OOK, 70	CRI)			(40	00K, 70	CRI)			(50	00K, 70	CRI)	
- a charge			turi (iiiri)		Lumens	В	U	G	LPW	Lumens	В	U	G	LPW	Lumens	В	U	G	LPW
				T1S	16,416	2	0	3	132	17,109	2	0	3	138	17,442	2	0	3	141
				T2M	15,207	3	0	4	123	15,849	3	0	4	128	16,158	3	0	4	130
				T3M	15,383	2	0	4	124	16,032	2	0	4	129	16,345	2	0	4	132
				T3LG	13,742	2	0	2	111	14,321	2	0	2	116	14,600	2	0	2	118
				T4M	15,613	2	0	4	126	16,272	2	0	4	131	16,589	2	0	4	134
				T4LG	14,200	2	0	2	115	14,799	2	0	2	119	15,087	2	0	2	122
	45.00	20	4250	TFTM	15,721	2	0	4	127	16,384	2	0	4	132	16,703	2	0	4	135
P4	124W	30	1250	T5M	16,063	4	0	2	130	16,741	4	0	2	135	17,067	4	0	2	138
				T5W	16,324	5	0	3	132	17,013	5	0	3	137	17,344	5	0	3	140
				T5LG	16,110	3	0	2	130	16,790	4	0	2	135	17,117	4	0	2	138
				BLC3 BLC4	11,190 11,557	0	0	3	90	11,662 12,044	0	0	3	94 97	11,889 12,279	0	0	3	96 99
				RCCO	11,291	1	0	3	93	11,767	1	0	3	95	11,996	1	0	3	99
				LCCO	11,291	1	0	3	91	11,767	1	0	3	95	11,996	1	0	3	97
				AFR	16,416	2	0	3	132	17,109	2	0	3	138	17,442	2	0	3	141
				T1S	18,052	2	0	3	131	18,814	2	0	3	136	19,180	2	0	3	139
				T2M	16,723	3	0	4	121	17,428	3	0	4	126	17,768	3	0	4	129
				T3M	16,917	3	0	4	122	17,630	3	0	4	128	17,974	3	0	4	130
				T3LG	15,111	2	0	2	109	15,749	2	0	2	114	16,055	2	0	2	116
				T4M	17,169	3	0	5	124	17,893	3	0	5	130	18,242	3	0	5	132
				T4LG	15,615	2	0	2	113	16,274	2	0	2	118	16,591	2	0	2	120
			1400	TFTM	17,288	2	0	4	125	18,017	2	0	5	130	18,368	3	0	5	133
P5	138W	30		T5M	17,664	5	0	3	128	18,410	5	0	3	133	18,768	5	0	3	136
				T5W	17,951	5	0	3	130	18,708	5	0	3	135	19,073	5	0	3	138
				T5LG	17,716	4	0	2	128	18,463	4	0	2	134	18,823	4	0	2	136
				BLC3	12,305	0	0	3	89	12,824	0	0	3	93	13,074	0	0	3	95
				BLC4	12,709	0	0	4	92	13,245	0	0	4	96	13,503	0	0	4	98
				RCCO	12,416	1	0	3	90	12,940	1	0	3	94	13,192	1	0	3	95
				LCCO	12,416	1	0	3	90	12,940	1	0	3	94	13,192	1	0	3	95
				AFR	18,052	2	0	3	131	18,814	2	0	3	136	19,180	2	0	3	139
				T1S	21,031	2	0	3	127	21,918	2	0	3	133	22,345	2	0	3	135
				T2M	19,482	3	0	4	118	20,303	3	0	4	123	20,699	3	0	4	125
				T3M	19,708	3	0	5	119	20,539	3	0	5	124	20,939	3	0	5	127
				T3LG	17,604	2	0	2	107	18,347	2	0	2	111	18,704	2	0	2	113
				T4M	20,001	3	0	5	121	20,845	3	0	5	126	21,251	3	0	5	129
				T4LG	18,191	2	0	2	110	18,959	2	0	2	115	19,328	2	0	2	117
Dr.	165111	40	1350	TFTM	20,140	3	0	5	122	20,989	3	0	5	127	21,398	3	0	5	129
P6	165W	40	1250	T5M T5W	20,579	5	0	3	125	21,447	5	0	3	130	21,865	5	0	3	132
				T5LG	20,912 20,638	5 4	0	3	127 125	21,795 21,509	5 4	0	2	132 130	22,219 21,928	5 4	0	2	134 133
				BLG	14,335	0	0	3	87	14,940	0	0	3	90	15,231	0	0	3	92
				BLC4	14,333	0	0	4	90	15,430	0	0	4	93	15,731	0	0	4	95
				RCCO	14,464	1	0	3	88	15,430	1	0	3	91	15,368	1	0	3	93
				LCCO	14,464	1	0	3	88	15,074	1	0	3	91	15,368	1	0	3	93
				AFR	21,031	2	0	3	127	21,918	2	0	3	133	22,345	2	0	3	135



Lumen Output

Forward Op	orward Optics																									
							30K					40K					50K									
Performance Package	System Watts	LED Count	Drive Current (mA)	Distribution Type		(300	OK, 70	CRI)			(40	00K, 70	CRI)			(50	00K, 70	CRI)								
rackage			Current (IIIA)		Lumens	В	U	G	LPW	Lumens	В	U	G	LPW	Lumens	В	U	G	LPW							
				T1S	22,741	2	0	3	123	23,700	2	0	3	129	24,162	3	0	3	131							
				T2M	21,066	3	0	4	114	21,955	3	0	4	119	22,383	3	0	4	121							
				T3M	21,311	3	0	5	116	22,210	3	0	5	120	22,642	3	0	5	123							
				T3LG	19,036	2	0	2	103	19,839	2	0	3	108	20,226	2	0	3	110							
				T4M	21,628	3	0	5	117	22,541	3	0	5	122	22,980	3	0	5	125							
				T4LG	19,671	2	0	2	107	20,501	2	0	3	111	20,900	2	0	3	113							
				TFTM	21,778	3	0	5	118	22,697	3	0	5	123	23,139	3	0	5	125							
P7	184W	40	1400	T5M	22,252	5	0	3	121	23,191	5	0	3	126	23,643	5	0	3	128							
				T5W	22,613	5	0	3	123	23,567	5	0	4	128	24,027	5	0	4	130							
				T5LG	22,317	4	0	2	121	23,258	4	0	2	126	23,712	4	0	2	129							
				BLC3	15,501	0	0	3	84	16,155	0	0	4	88	16,470	0	0	4	89							
				BLC4 RCCO	16,010 15,641	0	0	4	87 85	16,685	0	0	3	90	17,010	1	0	3	92 90							
				LCCO	15,641	1	0	3	85	16,301 16,301	1	0	3	89 89	16,619	1	0	3	90							
				AFR	22,741	2	0	3	123	23,700	2	0	3	129	16,619 24,162	3	0	3	131							
				T1S	28,701	3	0	3	133	29,912	3	0	4	139	30,495	3	0	4	141							
				T2M	26,587	3	0	5	123	27,709	3	0	5	128	28,249	3	0	5	131							
				T3M	26,895	3	0	5	125	28,030	3	0	5	130	28,576	3	0	5	132							
				T3LG	24,025	3	0	3	111	25,038	3	0	3	116	25,526	3	0	3	118							
				T4M	27,296	3	0	5	127	28,448	3	0	5	132	29,002	3	0	5	134							
				T4LG	24,826	3	0	3	115	25,873	3	0	3	120	26,378	3	0	3	122							
		60	60	60	60	60	60	60	60		TFTM	27,485	3	0	5	127	28,645	3	0	5	133	29,203	3	0	5	135
P8	216W									60	1100	T5M	28,084	5	0	4	130	29,269	5	0	4	136	29,839	5	0	4
				1100	T5W	28,539	5	0	4	132	29,743	5	0	4	138	30,323	5	0	4	141						
				T5LG	28,165	4	0	2	131	29,354	4	0	2	136	29,926	4	0	2	139							
				BLC3	19,563	0	0	4	91	20,388	0	0	4	94	20,786	0	0	4	96							
				BLC4	20,205	0	0	5	94	21,057	0	0	5	98	21,468	0	0	5	99							
				RCCO	19,740	1	0	4	91	20,572	1	0	4	95	20,973	1	0	4	97							
				LCC0	19,740	1	0	4	91	20,572	1	0	4	95	20,973	1	0	4	97							
				AFR	28,701	3	0	3	133	29,912	3	0	4	139	30,495	3	0	4	141							
				T1S	34,819	3	0	4	126	36,288	3	0	4	131	36,996	3	0	4	134							
				T2M	32,255	3	0	5	116	33,616	3	0	5	121	34,271	3	0	5	124							
				T3M	32,629	3	0	5	118	34,006	3	0	5	123	34,668	3	0	5	125							
				T3LG	29,146	3	0	3	105	30,376	3	0	4	110	30,968	3	0	4	112							
				T4M	33,116	3	0	5	120	34,513	3	0	5	125	35,185	3	0	5	127							
				T4LG	30,119	3	0	3	109	31,389	3	0	4	113	32,001	3	0	4	116							
				TFTM	33,345	3	0	5	120	34,751	3	0	5	125	35,429	3	0	5	128							
P9	277W	60	1400	T5M	34,071	5	0	4	123	35,509	5	0	4	128	36,201	5	0	4	131							
				T5W	34,624	5	0	4	125	36,084	5	0	4	130	36,788	5	0	4	133							
				T5LG	34,170	5	0	3	123	35,612	5	0	3	129	36,306	5	0	3	131							
				BLC3	23,734	0	0	4	86	24,735	0	0	4	89	25,217	0	0	4	91							
				BLC4	24,513	0	0	5	88	25,547	0	0	5	92	26,045	0	0	5	94							
				RCCO	23,948	1	0	4	86	24,958	1	0	4	90	25,445	1	0	4	92							
				LCCO	23,948	1	0	4	86	24,958	1	0	4	90	25,445	1	0	4	92							
				AFR	34,819	3	0	4	126	36,288	3	0	4	131	36,996	3	0	4	134							

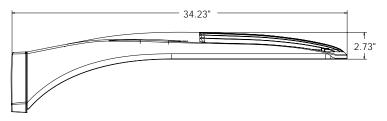


Lumen Output

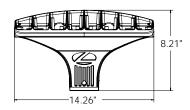
Rotated Op	tics																								
Performance			Drive				30K					40K					50K								
Package	System Watts	LED Count	Current (mA)	Distribution Type			00K, 70		LDW			00K, 70	_	LDW		_	00K, 70	_	LDIVI						
				T1S	15,164	B 3	0	G 3	150	15,803	B 3	0	G	156	16,112	B 3	0	3	LPW 159						
				T2M	14,047	4	0	4	139	14,640	4	0	4	145	14,925	4	0	4	147						
				T3M	14,208	4	0	4	140	14,807	4	0	4	146	15,096	4	0	4	149						
				T3LG	12,693	3	0	3	125	13,229	3	0	3	131	13,487	3	0	3	133						
				T4M	14,420	4	0	4	142	15,028	4	0	4	148	15,321	4	0	4	151						
				T4LG TFTM	13,115	3	0	3	129	13,668	3	0	3	135	13,934	3	0	3	138 152						
P10	101W	60	530	T5M	14,522 14,836	4	0	2	143 146	15,134 15,462	4	0	2	149 153	15,429 15,763	4	0	2	156						
1.10	10111	00	330	T5W	15,076	4	0	3	149	15,712	5	0	3	155	16,019	5	0	3	158						
				T5LG	14,879	3	0	2	147	15,507	3	0	2	153	15,809	3	0	2	156						
				BLC3	10,335	3	0	3	102	10,771	4	0	4	106	10,981	4	0	4	108						
				BLC4	10,674	4	0	4	105	11,124	4	0	4	110	11,341	4	0	4	112						
				RCCO	10,429	1	0	2	103	10,869	1	0	2	107	11,080	1	0	2	109						
				LCCO AFR	10,429	3	0	3	103 150	10,869	3	0	3	107 156	11,080	1	0	2	109 159						
				T1S	15,164 19,437	4	0	4	144	15,803 20,257	4	0	4	150	16,112 20,651	3	0	3	153						
				T2M	18,005	4	0	4	133	18,765	4	0	4	139	19,131	4	0	4	142						
				T3M	18,211	4	0	4	135	18,980	4	0	4	141	19,350	4	0	4	143						
				T3LG	16,270	3	0	3	121	16,957	3	0	3	126	17,287	4	0	4	128						
				T4M	18,483	4	0	4	137	19,263	5	0	5	143	19,638	5	0	5	146						
				T4LG	16,810	3	0	3	125	17,519	3	0	3	130	17,861	3	0	3	132						
Daa	42514		700	TFTM	18,614	4	0	4	138	19,399	4	0	4	144	19,777	5	0	5	147						
P11	135W	60	700	T5M T5W	19,017 19,325	5	0	3	141 143	19,819 20,140	5	0	3	147 149	20,205	5	0	3	150 152						
				TSLG	19,072	4	0	2	141	19,876	4	0	2	147	20,333	4	0	2	150						
				BLC3	13,247	4	0	4	98	13,806	4	0	4	102	14,075	4	0	4	104						
				BLC4	13,682	4	0	4	101	14,259	4	0	4	106	14,537	4	0	4	108						
				RCCO	13,367	1	0	3	99	13,931	1	0	3	103	14,203	1	0	3	105						
				LCCO	13,367	1	0	3	99	13,931	1	0	3	103	14,203	1	0	3	105						
				AFR	19,437	4	0	4	144	20,257	4	0	4	150	20,651	4	0	4	153						
				T1S T2M	27,457 25,436	5	0	5	133 124	28,616 26,509	5	0	5	139 129	29,174	5	0	5	142						
										T3M	25,727	5	0	5	125	26,812	5	0	5	130	27,025 27,335	5	0	5	131 133
				T3LG	22,984	4	0	4	112	23,954	4	0	4	116	24,421	4	0	4	119						
				T4M	26,110	5	0	5	127	27,212	5	0	5	132	27,742	5	0	5	135						
				T4LG	23,747	4	0	4	115	24,749	4	0	4	120	25,231	4	0	4	123						
				TFTM	26,295	5	0	5	128	27,404	5	0	5	133	27,938	5	0	5	136						
P12	206W	60	1050	T5M	26,864	5	0	4	130	27,997	5	0	4	136	28,543	5	0	4	139						
				T5W T5LG	27,299 26,942	5 4	0	2	133 131	28,451	5 4	0	2	138 136	29,006	5 4	0	2	141 139						
				BLC3	18,714	4	0	4	91	28,078 19,504	4	0	4	95	28,626 19,884	4	0	4	97						
				BLC4	19,327	5	0	5	94	20,143	5	0	5	98	20,535	5	0	5	100						
				RCCO	18,883	1	0	4	92	19,680	1	0	4	96	20,064	1	0	4	97						
				LCCO	18,883	1	0	4	92	19,680	1	0	4	96	20,064	1	0	4	97						
				AFR	27,457	4	0	4	133	28,616	4	0	4	139	29,174	4	0	4	142						
				T1S	34,436	5	0	5	125	35,889	5	0	5	130	36,588	5	0	5	133						
				T2M	31,900	5	0	5	116	33,246	5	0	5	121	33,894	5	0	5	123						
				T3M T3LG	32,265 28,826	4	0	5 4	117 105	33,626 30,042	5 4	0	4	122 109	34,282 30,628	5 4	0	4	124 111						
				T4M	32,746	5	0	5	119	34,128	5	0	5	124	34,793	5	0	5	126						
				T4LG	29,782	4	0	4	108	31,039	4	0	4	113	31,644	5	0	4	115						
				TFTM	32,978	5	0	5	120	34,369	5	0	5	125	35,039	5	0	5	127						
P13	276W	60	1400	T5M	33,692	5	0	4	122	35,113	5	0	4	127	35,797	5	0	4	130						
			00 1400	T5W	34,238	5	0	4	124	35,682	5	0	4	129	36,378	5	0	4	132						
				TSLG	33,789	5	0	3	122	35,215	5	0	3	128	35,901	5	0	3	130						
				BLC3 BLC4	23,471	5	0	5	85	24,461	5	0	5	89	24,937	5	0	5	90 93						
			RCCO	24,240 23,683	5 1	0	4	88 86	25,262 24,682	5 1	0	4	92 89	25,755 25,163	5 1	0	4	93							
			LCCO	23,683	1	0	4	86	24,682	1	0	4	89	25,163	1	0	4	91							
				AFR	34,436	5	0	5	125	35,889	5	0	5	130	36,588	5	0	5	133						
					, , ,					, ,					, ,				-						

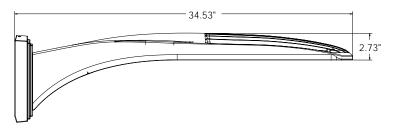


Dimensions

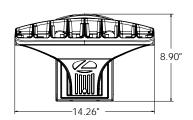


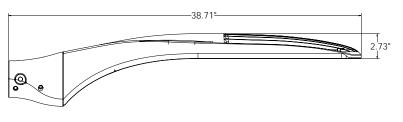
DSX1 with RPA, RPA5, SPA5, SPA8N mount Weight: 36 lbs



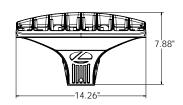


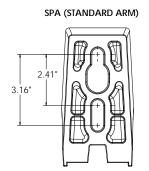
DSX1 with WBA mount Weight: 38 lbs

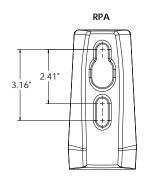


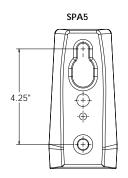


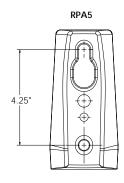
DSX1 with MA mount Weight: 39 lbs

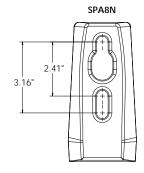










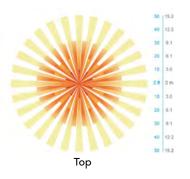


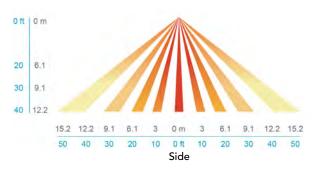
nLight Control - Sensor Coverage and Settings

nLight Sensor Coverage Pattern

NLTAIR2 PIRHN







FEATURES & SPECIFICATIONS

INTENDED USE

The sleek design of the D-Series Size 1 reflects the embedded high performance LED technology. It is ideal for many commercial and municipal applications, such as parking lots, plazas, campuses, and streetscapes.

CONSTRUCTION

Single-piece die-cast aluminum housing has integral heat sink fins to optimize thermal management through conductive and convective cooling. Modular design allows for ease of maintenance and future light engine upgrades. The LED drivers are mounted in direct contact with the casting to promote low operating temperature and long life. Housing driver compartment is completely sealed against moisture and environmental contaminants (IP66). Vibration rated per ANSI C136.31 for 3G for SPA and MA. 1.5G for mountings RPA, RPA5, SPA5 and SPA8N. Low EPA (0.69 ft²) for optimized pole wind loading.

FINISH

Exterior parts are protected by a zinc-infused Super Durable TGIC thermoset powder coat finish that provides superior resistance to corrosion and weathering. A tightly controlled multi-stage process ensures a minimum 3 mils thickness for a finish that can withstand extreme climate changes without cracking or peeling. Available in both textured and non-textured finishes.

Coastal Construction (CCE)

Optional corrosion resistant construction is engineered with added corrosion protection in materials and/or pre-treatment of base material under super durable paint. Provides additional corrosion protection for applications near coastal areas. Finish is salt spray tested to over 5,000 hours per ASTM B117 with scribe rating of 10. Additional lead-times may apply.

OPTICS

Precision-molded proprietary silicone lenses are engineered for superior area lighting distribution, uniformity, and pole spacing. Light engines are available in standard 3000 K, 4000 K and 5000 K (70 CRI) configurations. 80CRI configurations are also available. The D-Series Size 1 has zero uplight and qualifies as a Nighttime Friendly™ product, meaning it is consistent with the LEED® and Green Globes™ criteria for eliminating wasteful uplight.

ELECTRICAL

Light engine configurations consist of high-efficacy LEDs mounted to metal-core circuit boards to maximize heat dissipation and promote long life (up to L81/100,000 hours at 25°C). Class 1 electronic drivers are designed to have a power factor >90%, THD <20%, and an expected life of 100,000 hours with <1% failure rate. Easily serviceable 10kV surge protection device meets a minimum Category C Low operation (per ANSI/IEEE C62.41.2).

STANDARD CONTROLS

The DSX1 LED area luminaire has a number of control options. DSX Size 1, comes standard with 0-10V dimming drivers. Dusk to dawn controls can be utilized via optional NEMA twist-lock photocell receptacles. Integrated motion sensor with on-board photocells feature field-adjustable programing and are suitable for mounting heights up to 40 feet. Control option BL features a bi-level device that allows a second control circuit to switch all light engines to either 30% or 50% light output.

nLIGHT AIR CONTROLS

The DSX1 LED area luminaire is also available with nLight® AIR for the ultimate in wireless control. This powerful controls platform provides out-of-the-box basic motion sensing and photocontrol functionality and is suitable for mounting heights up to 40 feet. Once commissioned using a smartphone and the easy-to-use CLAIRITY app, nLight AIR equipped luminaries can be grouped, resulting in motion sensor and photocell group response without the need for additional equipment. Scheduled dimming with motion sensor over-ride can be achieved when used with the nLight Eclypse. Additional information about nLight Air can be found here.

INSTALLATION

Integral mounting arm allows for fast mounting using Lithonia standard #8 drilling and accommodates pole drilling's from 2.41 to 3.12" on center. The standard "SPA" option for square poles and the "RPA" option for round poles use the #8 drilling. For #5 pole drillings, use SPA5 or RPA5. Additional mountings are available including a wall bracket (WBA) and mast arm (MA) option that allows luminaire attachment to a 2 3/8" horizontal mast arm.

LISTINGS

UL listed to meet U.S. and Canadian standards. UL Listed for wet locations. Light engines are IP66 rated; luminaire is IP66 rated. Rated for -40°C minimum ambient.

DesignLights Consortium® (DLC) Premium qualified product and DLC qualified product. Not all versions of this product may be DLC Premium qualified or DLC qualified. Please check the DLC Qualified Products List at www.designlights.org/QPL to confirm which versions are qualified.

International Dark-Sky Association (IDA) Fixture Seal of Approval (FSA) is available for all products on this page utilizing 3000K color temperature only.

BUY AMERICAN ACT

Product with the BAA option is assembled in the USA and meets the Buy America(n) government procurement requirements under FAR, DFARS and DOT regulations. Please refer to www.acuitybrands.com/buy-american for additional information.

WARRANTY

5-year limited warranty. This is the only warranty provided and no other statements in this specification sheet create any warranty of any kind. All other express and implied warranties are disclaimed. Complete warranty terms located at: www.acuitybrands.com/support/warranty/terms-and-conditions

Note: Actual performance may differ as a result of end-user environment and application. All values are design or typical values, measured under laboratory conditions at 25 °C. Specifications subject to change without notice.



Application

Wall luminaires with single-sided light output designed to provide up or down lighting effects for interior and exterior locations.

Materials

Luminaire housing and faceplate constructed of die-cast marine grade, copper free (≤0.3% copper content) A360.0 aluminum alloy Clear safety glass

Reflector made of pure anodized aluminum

High temperature silicone gasket

Mechanically captive stainless steel fasteners

NRTL listed to North American Standards, suitable for wet locations

Protection class IP65

Weight: 4.4 lbs

Electrical

Operating voltage 120-277VAC -30° C Minimum start temperature LED module wattage 7.9W 10.5 W System wattage

Controllability 0-10V dimmable

Color rendering index Ra > 80

652 lumens (3000K) Luminaire lumens LED service life (L70) 60,000 hours

LED color temperature

4000K - Product number + K4 (EXPRESS)

3500K - Product number + K35

3000K - Product number + K3 (EXPRESS)

2700K - Product number + K27 Amber - Product number + AMB

Wildlife friendly amber LED - Optional

Luminaire is optionally available with a narrow bandwidth, amber LED source (585-600nm) approved by the FWC. This light output is suggested for use within close proximity to sea turtle nesting and hatching habitats. Electrical and control information may vary from standard luminaire.

LED module wattage 9.0W (Amber) System wattage 11.6 W (Amber) Luminaire lumens 220 lumens (Amber)

BEGA can supply you with suitable LED replacement modules for up to 20 years after the purchase of LED luminaires - see website for details

All BEGA standard finishes are matte, textured polyester powder coat with minimum 3 mil thickness

Black (BLK) Available colors White (WHT) RAL:

> Bronze (BRZ) Silver (SLV) CUS:

Wall luminaire · single-sided output

Required LFD D wiring box 66 655 7.9W 43/8 63/8 1 5/8 19537 19.59

 β = Beam angle

BEGA 1000 BEGA Way, Carpinteria, CA 93013 (805) 684-0533 info@bega-us.com

Type:

BEGA Product:

Project:

Modified:

Available Accessories

79547 Suface mounted wiring box See individual accessory spec sheet for details.





FEATURES & SPECIFICATIONS

INTENDED USE — Typical applications include corridors, lobbies, conference rooms and private offices.

CONSTRUCTION — Galvanized steel mounting/plaster frame; galvanized steel junction box with bottom-hinged access covers and spring latches. Reflectors are retained by torsion springs.

 $Vertically\ adjustable\ mounting\ brackets\ with\ commercial\ bar\ hangers\ provide\ 3-3/4"\ total\ adjustment.$

Two combination $\frac{1}{2}$ "-3/4" and four $\frac{1}{2}$ " knockouts for straight-through conduit runs. Capacity: 8 (4 in, 4 out). No. 12 AWG conductors, rated for 90°C.

Accommodates 12"-24" joist spacing.

Passive cooling thermal management for 25°C standard; high ambient (40°C) option available. Light engine and drivers are accessible from above or below ceiling.

Max ceiling thickness 1-1/2".

OPTICS — LEDs are binned to a 3-step MacAdam Ellipse; 80 CRI minimum. 90 CRI optional.

LED light source concealed with diffusing optical lens.

General illumination lighting with 1.0 S/MH and 55° cutoff to source and source image.

Self-flanged anodized reflectors in specular, semi-specular, or matte diffuse finishes. Also available in white and black painted reflectors.

A+ CAPABLE LUMINAIRE — This item is an A+ capable luminaire, which has been designed and tested to provide consistent color appearance and out-of-the-box control compatibility with simple commissioning when used with Acuity Brands controls products. All configurations of this luminaire are calibrated and tested to meet the Acuity Brands' specifications for chromatic consistency — including color rendering, color fidelity and color temperature tolerance around standard CIE chromaticity coordinates. To learn more about A+ standards, specifications, and testing visit www.acuitybrands.com/aplus.

 $\textbf{UGR} - \underline{\textbf{UGR}} \text{ is zero for fixtures aimed at nadir with a cut-offequal to or less than 60 deg, per CIE 117-1996 Discomfort Glare in Interior Lighting.$

ELECTRICAL — Multi-volt (120-277V, 50/60Hz) 0-10V dimming drivers mounted to junction box, 10% or 1% minimum dimming level available.

0-10V dimming fixture requires two (2) additional low-voltage wires to be pulled.

LUMEN MAINTENANCE — 70% lumen maintenance at 60,000 hours. L70/60,000 hours

LISTINGS — Certified to US and Canadian safety standards. Wet location standard (covered ceiling). IP55 rated. ENERGY STAR® certified product. Drivers are RoHS compliant

BUY AMERICAN ACT — Product with the BAA option is assembled in the USA and meets the Buy America(n) government procurement requirements under FAR, DFARS and DOT regulations. Please refer to www.acuitybrands.com/buy-american for additional information.

WARRANTY — 5-year limited warranty. This is the only warranty provided and no other statements in this specification sheet create any warranty of any kind. All other express and implied warranties are disclaimed. Complete warranty terms located at: www.acuitybrands.com/support/warranty/terms-and-conditions

Note: Actual performance may differ as a result of end-user environment and application. All values are design or typical values, measured under laboratory conditions at 25 °C. Specifications subject to change without notice.

PERFORMANCE DATA

LDN6 3500K AR LSS 80CRI											
Nominal Lumens	Lumens	Wattage	Lm/W								
500	527.9	5.8	90.5								
750	758.1	8.9	85.1								
1000	950.1	10.4	91.0								
1500	1514	17.5	86.4								
2000	2006	22.5	89.1								
2500	2504	28.3	88.6								
3000	3021	34.8	86.9								
4000	4008	44.3	90.6								
5000	4975	57.7	86.3								

Notes

- Tested in accordance with IESNA LM-79-08.
- $\bullet \, \text{Tested to current IES and NEMA standards under stabilized laboratory conditions}.$
- CRI: 80 typical.















LDN6 STATIC WHITE



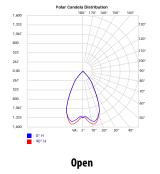


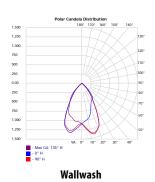


Open Trim

Wallwash Trim

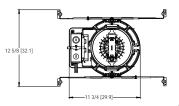
DISTRIBUTIONS

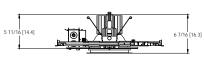




DIMENSIONS

LDN6 500-3000 Lumens





Ceiling Cutout: Ø 7-1/8" [18.1] Self-flanged Overlap Trim: Ø 7-1/2" [19.1]

See page 4 for other fixture dimensions

DOWNLIGHTING LDN6



Example: LDN6 35/15 LO6 AR LSS MVOLT EZ10

ORDERING INFORMATION

Lead times will vary depending on options selected. Consult with your sales representative.

LDN6							
Series	Color temperature	Lumens ‡	Trim Style	Trim Color	Trim Finish	Flange Color ‡	Voltage
LDN6 6"round	27/ 2700K 30/ 3000K 35/ 3500K 40/ 4000K 50/ 5000K	05 500 lumens 07 750 lumens 10 1000 lumens 15 1500 lumens 20 2000 lumens 25 2500 lumens 30 3000 lumens 40 4000 lumens 50 5000 lumens	LO6 Downlight LW6 Wallwash	AR Clear WR	LSS Semi-specular LD Matte diffuse LS Specular	TRW White painted flange TRBL Black painted flange FCPC Custom painted flange only FRALTBD RAL painted flange only	MVOLT Multi-volt 120 120V 277 277V 347 ‡ 347V

Driver	Emergency ‡	Control Input ‡	Options
GZ10 0-10V driver dims to 10% GZ1 0-10V driver dims to 1% D10 Minimum dimming 10% driver for use with JOT D1 Minimum dimming 1% driver for use with JOT EZ1 0-10V eldoLED driver with smooth and flicker- free deep dimming performance down to 1% EDAB eldoLED DALI SOLDRIVE dim to dark	(blank) No Emergency Needed EL Battery pack (10W constant power), non-T20 compliant, integral test switch ELR Battery pack (10W constant power), non-T20 compliant, remote test switch ELSD Self-diagnostic battery pack (10W constant power), non-T20 compliant, integral test switch ELRSD Self-diagnostic battery pack (10W constant power), non-T20 compliant, remote test switch E10WCP Battery pack (10W constant power), T20 compliant, integral test switch E10WCPR Battery pack (10W constant power), T20 compliant, remote test switch E10WRSTAR Emergency battery pack, 10W with remote test switch and lota STAR technology	(blank) No Control Input Needed Wireless room control with "Just One Touch" pairing nLight" network power/relay pack with 0-10V dimming for non-eldoLED drivers (GZ10, GZ1). NPP16DER NPP16DER nLight" network power/relay pack with 0-10V dimming for non-eldoLED drivers (GZ10, GZ1). ER controls fixtures on emergency circuit. NPS80EZ nLight" dimming pack controls 0-10V eldoLED drivers (EZ1). NPS80EZER nLight" dimming pack controls 0-10V eldoLED drivers (EZ1). ER controls fixtures on emergency circuit. NB0 nLight" Lumen Compensation NLTAIREN NLTAIREN2 NLTAIREN2 NLTAIREM2 NLTAIREM3 NLTAIREM4 NLTAIREM5 NLTAIREM6 NLTAIREM7 NLTAIREM8 NLTAIREM8 NLTAIREM8 NLTAIREM9 NLTAIR	HAO # High ambient option (40°C) CP # Chicago Plenum REL_ REL_ RELOC®-ready luminaire connectors enable a simple and consistent factory installed option across all ABL luminaire brands. Refer to RRL for complete nomenclature. Available only in RRLA, RRLB, RRLAE, and RRLC125. BAA Buy America(n) Act Compliant 90CRI High CRI (90+) SF # Single fuse

	‡ Option Value Ordering Restrictions
Option value	Restriction
Lumens	Overall height varies based on lumen package; refer to dimensional chart.
WR, BR	Not available with finishes.
347	Not available with emergency options.
SF	Must specify voltage 120V or 277V.
TRW, TRBL	Available with clear (AR) reflector only.
EL, ELR, ELSD, ELRSD, E10WCP, E10WCPR	12.5" of plenum depth or top access required for battery pack maintenance.
NPP16D, NPP16DER, NPS80EZ, NPS80EZER	Specify voltage. ER for use with generator supply EM power. Will require an emergency hot feed and normal hot feed. See UL 924 Sequence of Operation table.
N80	Fixture begins at 80% light level. Must be specified with NPS80EZ or NPS80EZ ER. Only available with EZ1 drivers.
NLTAIR, NLTAIR2, NLTAIRER2, NLTAIREM2	Not available with CP, NPS80EZ, NPS80EZER, NPP16D, NPP16DER or N80 options. not recommended for metal ceiling installations.
HA0	Fixture height is 6.5" for all lumen packages with HAO.
СР	Must specify voltage for 3000lm and above. 5000lm with marked spacing 24 L x 24 W x 14 H. Not available with emergency battery pack option.
JOT	Must specify D10 or D1 driver. Not available with nLight options. Not available with CP. Not recommended for metal ceiling installation. Not for use with emergency backup power systems other than battery packs.
Reloc® Options	Refer to RRL specification sheet on acuitybrands.com for further details.
RRLAE	Commercial fixtures should disconnect the TSPL before unplugging the RRL so it does not go into discharge mode.
RRLC12S	RRLC12S option is to be used with the OnePass OCU, OCS, OD, OFC and OD for 0-24V integrated single-circuit or 0-10V low voltage controls applications. Not available with integral dimming sensors.
TRALTBD, FRALTBD	RALTBD for pricing only. Replace with applicable RAL number and finish when ready to order. See the RAL BROCHURE for available color options.
TCPC, FCPC	CPC options for pricing only. Custom color chip needs to be sent in to your Customer Resolution specialist before order can be processed. Click HERE for more details
E10WRSTAR	Not available with wet location, EC1, EC6, QDS, CP, 347V, NPS80EZ ER, NLTAIRER2, NLTAIREM2, ALO3 & ALO4 w/DALI, OR 2000-4500 lumens w/JOT. Top access installation or 17.5" plenum clearance required for roomside installation. Not available with integral test switch

Accessories: Order as separate catalog number.											
EAC ISSM 375	Compact interruptible emergency AC power system	SCA6	Sloped Ceiling Adapter. Degree of slope must be specified (5D, 10D, 15D, 20D,								
EAC ISSM 125	Compact interruptible emergency AC power system		25D, 30D). Ex: SCA6 10D								
GRA68 JZ	Oversized trim ring with 8" outside diameter										



Items marked by a shaded background qualify for the Design Select program and ship in 15 days or less. To learn more about Design Select, visit www.acuitybrands.com/designselect. *See ordering tree for details

(Maximum order quantity for design select lead times is 112.)



LDN6

Emergency Battery Pack Options - Field Installable

Battery Model Number	Wattage	Runtime (Minutes)	Lumen Output* @ 120 Lumens/Watt	Other
ILB CP07 2H A	7W	120	840	Storm Shelter / 2 Hour Runtime
ILB CP10 A	10W	90	1200	
ILBLP CP10 HE SD A+	10W	90	1200	Title 20, Self Diagnostic
ILBLP CP15 HE SD A+	15W	90	1800	Title 20, Self Diagnostic
ILB CP20 HE A	20W	90	2400	Title 20
ILB CP20 HE SD A	20W	90	2400	Title 20, Self Diagnostic
ILBHI CP10 HE SD A+	10W	90	1200	347-480V AC Input, Title 20, Self Diagnostic
ILBHI CP15 HE SD A+	15W	90	1800	347-480V AC Input, Title 20, Self Diagnostic

All the above are UL Listed products that are certified for field install external/remote to the fixture.



 $^{{\}bf *Minimum\ delivered\ lumen\ output\ to\ assist\ in\ product\ selection\ for\ increased\ fixture\ mounting\ height.}$

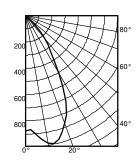
The CP10 delivered emergency illumination outperforms legacy 1400 lumen fluorescent emergency ballast.

Please contact us at techsupport@iotaengineering.com for any Emergency Battery related questions.

PHOTOMETRY

Distribution Curve	Distribution Data	Output Data	Illuminance Data at 30" Above Floor for
			a Single Luminaire

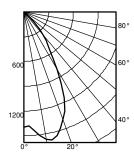
LDN6 35/10 L06AR, input watts: 10.44, delivered lumens: 987.10, LM/W = 94.54, spacing criterion at 0 = 1.02, test no. ISF 30716P262.



	Ave	Lumens	Zone	Lumens	% Lamp
0	876		0°-30°	680.7	69.0
5	905	89	0°-40°	895.0	90.7
15	971	269	0°-60°	986.0	99.9
25	720	322	0°-90°	987.0	100.0
35	330	214	90°-120°	0.0	0.0
45	110	87	90°-130°	0.0	0.0
55	1	4	90°-150°	0.0	0.0
35	1	1	90°-180°	0.0	0.0
75	0	0	0°-180°	987.0	*100.0
35	0	0	*	Efficiency	

		50% be		10% be	
		54.5	o°	82.2	0
	Inital FC				
Mounting	Center				
_Height	Beam	Diameter	FC	Diameter	FC
8.0	29.0	5.7	14.5	9.6	2.9
10.0	15.6	7.7	7.8	13.1	1.6
12.0	9.7	9.8	4.9	16.6	1.0
14.0	6.6	11.8	3.3	20.1	0.7
16.0	4.8	13.9	2.4	23.6	0.5

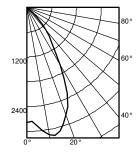
LDN6 35/15 LO6AR, input watts: 17.52, delivered lumens: 1572.9, LM/W = 89.77, spacing criterion at 0 = 1.02, test no. ISF 30716P265.



	Ave	Lumens	Zone	Lumens	% Lamp
0	1396		0°-30°	1084.6	69.0
5	1442	142	0°-40°	1426.2	90.7
15	1547	429	0°-60°	1571.3	99.9
25	1147	514	0°-90°	1572.9	100.0
35	526	342	90° - 120°	0.0	0.0
45	176	139	90° - 130°	0.0	0.0
55	2	6	90° - 150°	0.0	0.0
65	1	1	90° - 180°	0.0	0.0
75	1	1	0°-180°	1572.9	*100.0
85	0	0	*	Efficiency	
90	0				

		50% be	eam -	10% be	am -
		54.5	5°	82.2	0
	Inital FC				
Mounting	Center				
Height	Beam	Diameter	FC	Diameter	FC
8.0	46.2	5.7	23.1	9.6	4.6
10.0	24.8	7.7	12.4	13.1	2.5
12.0	15.5	9.8	7.7	16.6	1.5
14.0	10.6	11.8	5.3	20.1	1.1
16.0	7.7	13.9	3.8	23.6	8.0

LDN6 35/30 LO6AR, input watts: 34.75, delivered lumens: 3138.5, LM/W = 90.31, spacing criterion at 0 = 1.02, test no. ISF 30716P274.



	Ave	Lumens	Zone	Lumens	% Lamp
0	2786		0°-30°	2164.3	69.0
5	2877	284	0°-40°	2845.9	90.7
15	3087	855	0°-60°	3135.3	99.9
25	2289	1025	0°-90°	3138.5	100.0
35	1049	682	90° - 120°	0.0	0.0
45	350	277	90° - 130°	0.0	0.0
55	5	12	90° - 150°	0.0	0.0
65	2	2	90° - 180°	0.0	0.0
75	1	1	0°-180°	3138.5	*100.0
85	0	0	*	Efficiency	
90	0				

	50% be	am -	10% be	am -
	54.5	5°	82.2	0
Inital FC				
Center				
Beam	Diameter	FC	Diameter	FC
92.1	5.7	46.1	9.6	9.2
49.5	7.7	24.8	13.1	5.0
30.9	9.8	15.4	16.6	3.1
21.1	11.8	10.5	20.1	2.1
15.3	13.9	7.6	23.6	1.5
	Center Beam 92.1 49.5 30.9 21.1	54.5	Center Beam Diameter Diameter FC 92.1 5.7 46.1 49.5 7.7 24.8 30.9 9.8 15.4 21.1 11.8 10.5	S4.5° S2.2

HOW TO ESTIMATE DELIVERED LUMENS IN EMERGENCY MODE

Use the formula below to estimate the delivered lumens in emergency mode

Delivered Lumens = 1.25 x P x LPW

P = Ouput power of emergency driver. P = 10W for PS1055CP

LPW = Lumen per watt rating of the luminaire. This information is available on the ABL luminaire spec sheet.

The LPW rating is also available at **Designlight Consortium**.

LUMEN OUTPUT MULTIPLIERS - FINISH					
Clear (AR) White (WR) Black (BR)					
Specular (LS)	1.0	N/A	N/A		
Semi-specular (LSS)	0.950	N/A	N/A		
Matte diffuse (LD)	0.85	N/A	N/A		
Painted	N/A	0.87	0.73		

LUMEN OUTPUT MULTIPLIERS - CRI		
80	1.0	
90	0.874	

Notes

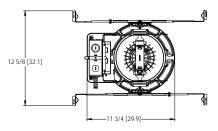
- Tested in accordance with IESNA LM-79-08.
- Tested to current IES and NEMA standards under stabilized laboratory conditions.
- CRI: 80 typical.

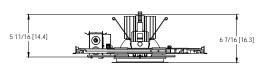
LUMEN OUTPUT MULTIPLIERS - CCT					
	2700K	3000K	3500K	4000K	5000K
80CRI	0.950	0.966	1.000	1.025	1.101



* All dimensions are inches (centimeters) unless otherwise noted.

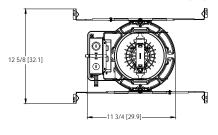
LDN6 500-3000 Lumens

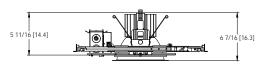




Aperture: Ø 6-1/4" [15.9] Ceiling Cutout: Ø 7-1/8" [18.1] Self-flanged Overlap Trim: Ø 7-1/2" [19.1]

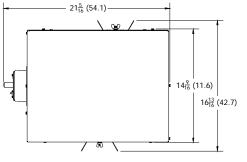
LDN6 4000-5000 Lumens

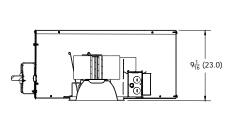




Marked Spacing: 24" x 24" x 10" Aperture: Ø 6-1/4" [15.9] Ceiling Cutout: Ø 7-1/8" [18.1] Self-flanged Overlap Trim: Ø 7-1/2" [19.1]

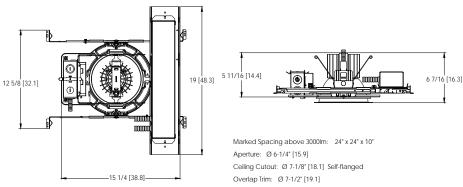
LDN6 CP





Aperture: 6-1/4 (15.9) Ceiling Opening: 7-1/8 (18.1) Overlap Trim: 7-1/2 (19.1)

LDN6 EL



ADDITIONAL DATA

The Sensor Switch JOT enabled solution offers a wireless, app-free approach to single room lighting control. JOT enabled products use Bluetooth® Low Energy (BLE) technology to enable wireless dimming and switching.

Diagram







LDN6 Series



Sensor Switch WSXA JOT

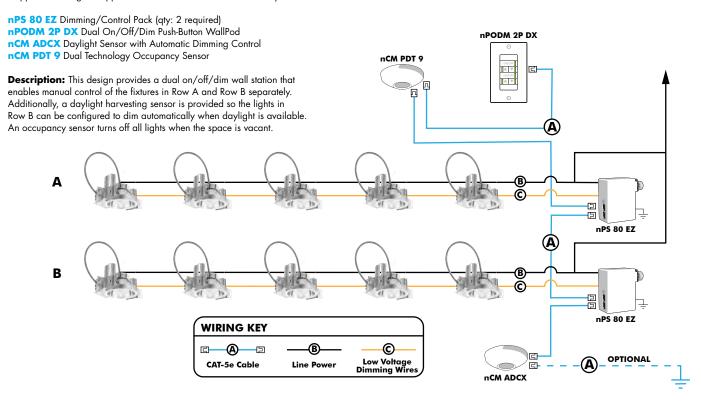
- 1. Power: Install JOT enabled fixtures and controls as
- 2. Pair: Insert the pairing tool into the pinhole on the wall switch; press and hold any button for 6 seconds.
- **3. Play:** Once paired, each fixture will individually dim down to 10% brightness. All products will be fully functional.

COMPATIBLE 0-10V WALL-MOUNT DIMMERS				
MANUFACTURER	PART NO.	POWER BOOSTER AVAILABLE		
	Diva® DVTV			
Lutron®	Diva® DVSCTV			
Lutron®	Nova T® NTFTV			
	Nova® NFTV			
	AWSMT-7DW	CN100		
	AWSMG-7DW	PE300		
Leviton®	AMRMG-7DW			
	Leviton Centura Fluorescent Control System			
	IllumaTech® IP7 Series			
	ISD BC			
Synergy®	SLD LPCS	RDMFC		
	Digital Equinox (DEQ BC)			
Douglas Lighting Controls	WPC-5721			
	Tap Glide TG600FAM120 (120V)			
Entertainment Technology	Tap Glide Heatsink TGH1500FAM120 (120V)			
	Oasis 0A2000FAMU			
Honeywell	EL7315A1019	EL7305A1010		
noneywen	EL7315A1009	(optional)		
	Preset slide: PS-010-IV and PS-010-WH			
	Preset slide: PS-010-3W-IV and PS-010-3W-WH			
HUNT Dimming	Preset slide, controls FD-010: PS-IFC-010-IV and PS-IFC-010-WH-120/277V			
	Preset slide, controls FD-010: PS-IFC-010-3W-IV and PS-IFC-010-3W-WH-120/277V			
	Remote mounted unit: FD-010			
Lehigh Electronic Products	Solitaire	PBX		
PDM Electrical Products	WPC-5721			
Starfield Controls	TR61 with DALI interface port	RT03 DALInet Router		
WattStopper®	LS-4 used with LCD-101 and LCD-103			

EXAMPLE

Group Fixture Control*

*Application diagram applies for fixtures with eldoLED drivers only.



Choose Wall Controls

nLight offers multiple styles of wall controls - each with varying features and user experience.



Push-Button Wallpod Traditional tactile buttons and LED user feedback



Graphic WallpodFull color touch screen provides a sophisticated look and feel

nLight [®] Wired Controls Accessories:								
$Order\ as\ separate\ catalog\ number.\ Visit\ \underline{www.acuitybrands.com/products/controls/nlight}\ for\ complete\ listing\ of\ nLight\ controls.$								
WallPod Stations	Model number	Occupancy sensors	Model Number					
On/Off	nPODM (Color)	Small motion 360°, ceiling (PIR/dual Tech)	nCM 9 / nCM PDT 9					
On/Off & Raise/Lower	nPOD DX (Color)	Large motion 360°, ceiling (PIR/dual tech)	nCM 10 / nCM PDT 10					
Graphic Touchscreen	nPOD GFX (Color)	Wide View (PIR/dual tech)	nWV 16 / nWV PDT 16					
Photocell controls	Model Number	Wall Switch w/ Raise/Lower (PIR/dual tech)	nWSX LV DX / nWSX PDT LV DX					
Dimming	nCM ADCX	Cat-5 cables (plenum rated)	Model Number					
		10', CAT5 10FT	CATS 10FT J1					
		15, CATS 15FT	CATS 15FT J1					

nLight® AIR Control Accessories:
Order as separate catalog number. Visit www.acuitybrands.com/products/controls/nlightair.

Wall switches	Model number
On/Off single pole	rPODB [color]
On/Off two pole	rPODB 2P [color]
On/Off & raise/lower single pole	rPODB DX [color]
On/Off & raise/lower two pole	rPODB 2P DX [color]
On/Off & raise/lower single pole	rPODBZ DX WH1

Notes

Can only be ordered with the RES7Z zone control sensor version.

UL924 Sequence of Operation

The below information applies to all nLight AIR devices with an EM option.

- EM devices will remain at their high-end trim and ignore wireless lighting control commands, unless a normal-power-sensed (NPS) broadcast is received at least every 8 seconds.
- Using the CLAIRITY+ mobile app, EM devices must be associated with a group that includes a normal power sensing device to receive NPS broadcasts.
- Only non-emergency rPP20, rLSXR, rSBOR, rSDGR, and nLight AIR luminaires with version 3.4 or later firmware can provide normal power sensing for EM devices. See specification sheets for control devices and luminaires for more information on options that support normal power sensing.

nLight AIR

nLight AIR is the ideal solution for retrofit or new construction spaces where adding communication is cost prohibitive. The integrated nLight AIR rPP20 Power Pack is part of each Lithonia LDN Luminaire. These individually addressable controls offer the ultimate in flexibility during initial setup and for space repurposing.







Simple as 1,2,3

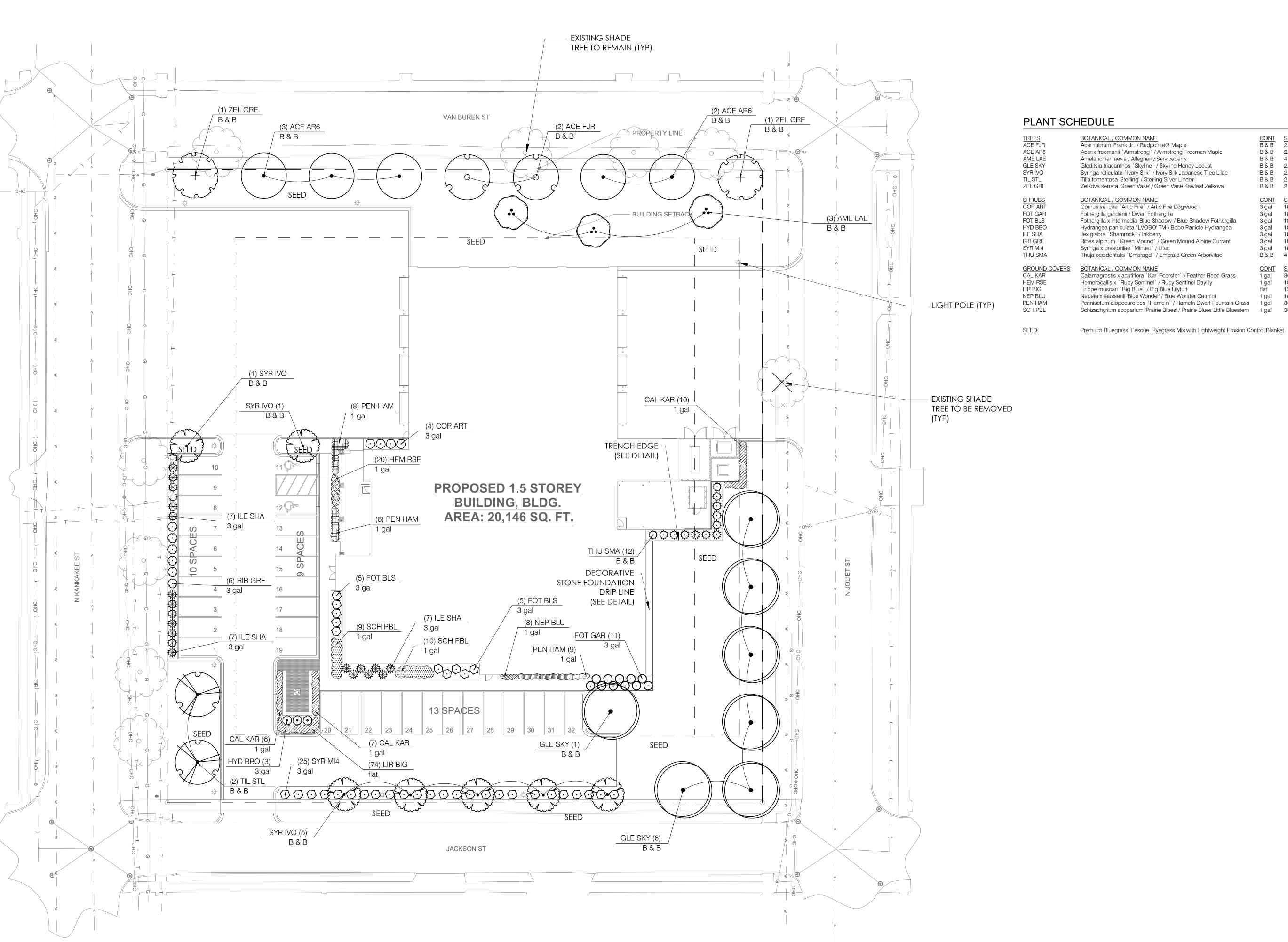
- 1. Install the nLight® AIR fixtures with embedded smart sensor
- 2. Install the wireless battery-powered wall switch
- 3. With CLAIRITY app, pair the fixtures with the wall switch and if desired, customize the sensor settings for the desired outcome













TREES ACE FJR ACE AR6 AME LAE	BOTANICAL / COMMON NAME Acer rubrum 'Frank Jr.' / Redpointe® Maple Acer x freemanii `Armstrong` / Armstrong Freeman Maple Amelanchier laevis / Allegheny Serviceberry	CONT B & B B & B B & B	<u>SIZE</u> 2.5"Cal 2.5"Cal 4` H.	QTY 2 5 3	REMARKS Multi-Stem
GLE SKY SYR IVO	Gleditsia triacanthos `Skyline` / Skyline Honey Locust Syringa reticulata `Ivory Silk` / Ivory Silk Japanese Tree Lilac	B&B	2.5"Cal 2.5"Cal	7 7	
TIL STL	Tilia tomentosa 'Sterling' / Sterling Silver Linden	B & B B & B	2.5 Cal 2.5" Cal	2	
ZEL GRE	Zelkova serrata 'Green Vase' / Green Vase Sawleaf Zelkova	B&B	2.5"Cal	2	
SHRUBS	BOTANICAL / COMMON NAME	CONT	SIZE	QTY	REMARKS
COR ART	Cornus sericea `Artic Fire` / Artic Fire Dogwood	3 gal	18" H.	4	
FOT GAR	Fothergilla gardenii / Dwarf Fothergilla	3 gal	18" H.	11	
FOT BLS	Fothergilla x intermedia 'Blue Shadow' / Blue Shadow Fothergilla	3 gal	18" H.	10	
HYD BBO	Hydrangea paniculata 'ILVOBO' TM / Bobo Panicle Hydrangea	3 gal	18" H.	3	
ILE SHA	Ilex glabra `Shamrock` / Inkberry	3 gal	18" H.	21	
RIB GRE	Ribes alpinum `Green Mound` / Green Mound Alpine Currant	3 gal	18" H.	6	
SYR MI4	Syringa x prestoniae `Minuet` / Lilac	3 gal	18" H.	25	
THU SMA	Thuja occidentalis `Smaragd` / Emerald Green Arborvitae	B & B	4`H	12	
GROUND COVERS	BOTANICAL / COMMON NAME	CONT	SPACING	QTY	REMARKS
CAL KAR	Calamagrostis x acutiflora `Karl Foerster` / Feather Reed Grass	1 gal	36" o.c.	23	
HEM RSE	Hemerocallis x `Ruby Sentinel` / Ruby Sentinel Daylily	1 gal	18" o.c.	20	
LIR BIG	Liriope muscari `Big Blue` / Big Blue Lilyturf	flat	12" o.c.	74	
NEP BLU	Nepeta x faassenii 'Blue Wonder' / Blue Wonder Catmint	1 gal	18" o.c.	8	
PEN HAM	Pennisetum alopecuroides `Hameln` / Hameln Dwarf Fountain Grass	1 gal	36" o.c.	23	
SCH PBL	Schizachyrium scoparium 'Prairie Blues' / Prairie Blues Little Bluestem	1 gal	36" o.c.	19	





223 West Jackson Boulevard, Suite 1200 Chicago, Illinois 60606 (312) 253-3400



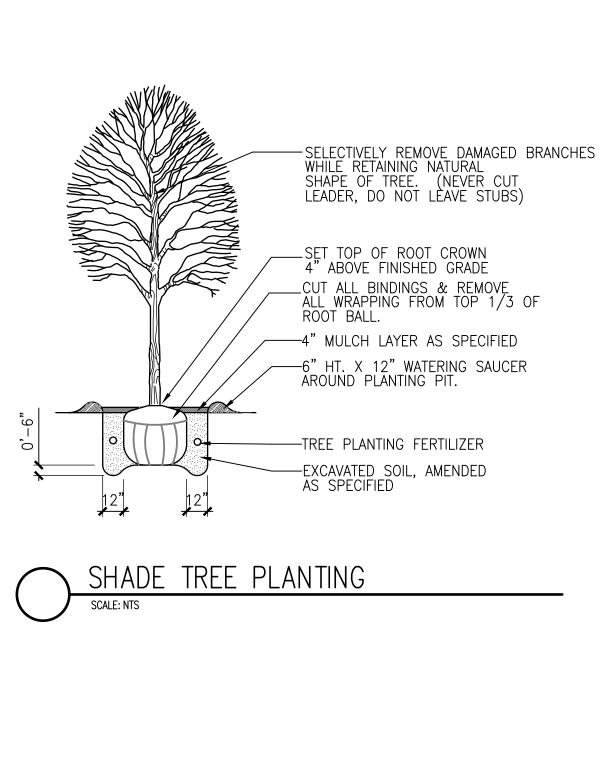
1167 Hobson Mill Drive Naperville, Illinois 60540 Telephone: (630) 606-0776 www.design-perspectives.net

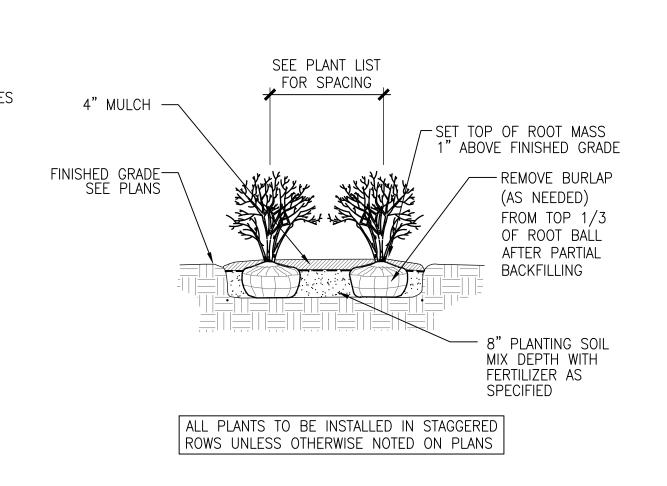
• 25% Review Set • 10.16.2023 • 60% Review Set • 10.30.2023

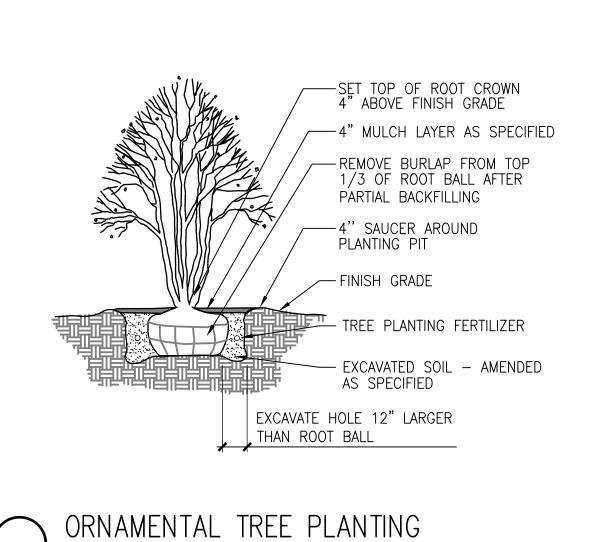
> LANDSCAPE **PLAN**

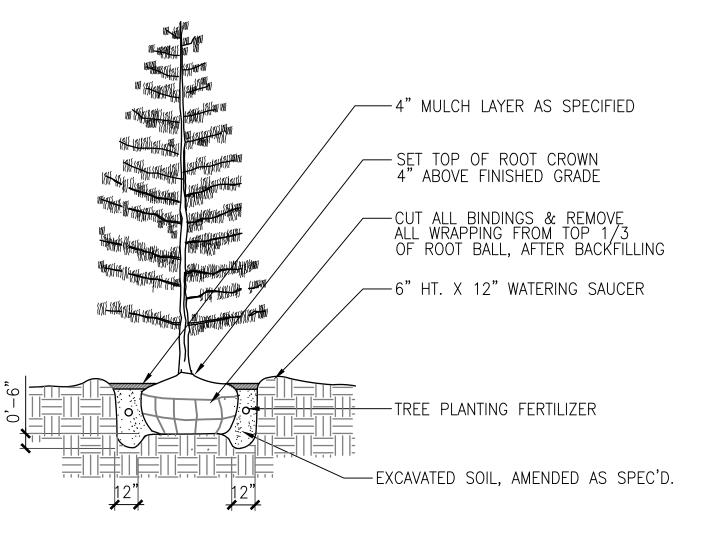
SCALE: 1" =20'

COPYRIGHT 2023, STUDIOGC, INC.

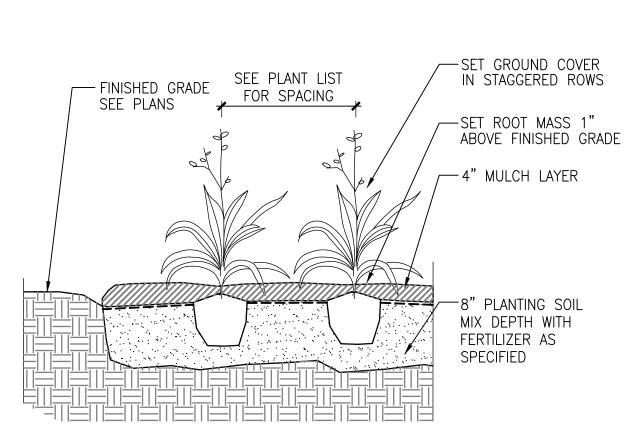


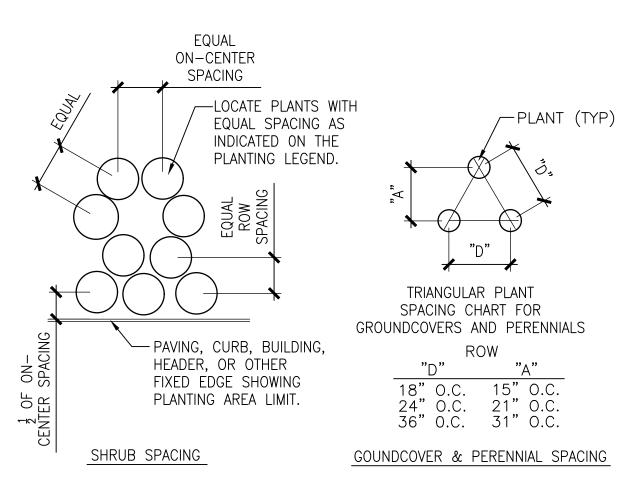


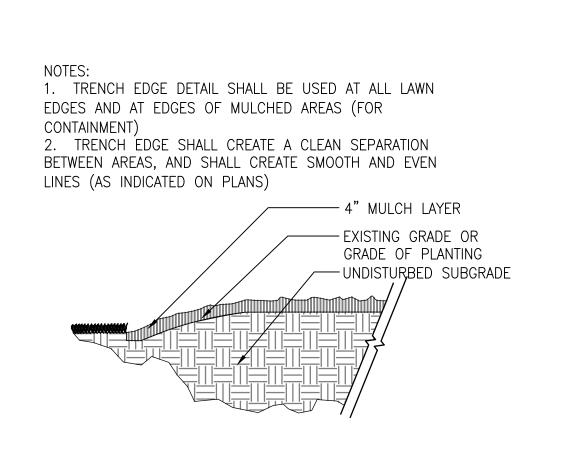


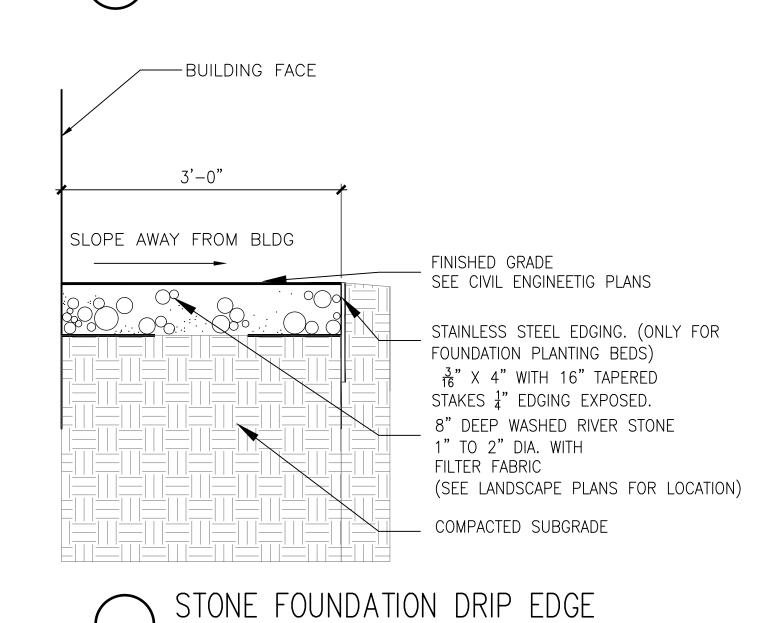


DT-evergreen-gyn









EVERGREEN TREE PLANTING

1. THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR MAKING HIMSELF FAMILIAR WITH ALL UNDERGROUND UTILITIES AND STRUCTURES. SEE CONSTRUCTION

DT-groundcover-gyn

CONTRACTOR.

GROUNDCOVER PLANTING

2. DO NOT WILLFULLY PROCEED WITH PLANTINGS AS DESIGNED WHEN IT IS OBVIOUS THAT OBSTRUCTIONS AND/OR GRADE DIFFERENCES EXIST THAT MAY NOT HAVE BEEN KNOWN DURING THE DESIGN PROCESS. SUCH CONDITIONS SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE PROJECT MANAGER. THE LANDSCAPE CONTRACTOR WILL BE HELD RESPONSIBLE FOR ANY NECESSARY REVISIONS AND COSTS DUE TO FAILURE TO GIVE SUCH NOTIFICATION.

3. THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY COORDINATION WITH SUBCONTRACTORS AND/OR SUPPLIERS AS REQUIRED TO ACCOMPLISH PLANTING OPERATIONS.

4. THE LANDSCAPE CONTRACTOR IS TO RECEIVE THE SITE AT $\pm 1/10$ TH OF AN INCH. THE LANDSCAPE CONTRACTOR SHALL OBTAIN A LETTER OF GRADE FROM THE GENERAL CONTRACTOR PRIOR TO BEGINNING WORK.

5. REFER TO SPECIFICATIONS FOR PLANTING REQUIREMENTS, MATERIALS, AND EXECUTION.

6. ALL TREES SHALL BE TAGGED BY THE PROJECT MANAGER AT A NURSERY SELECTED BY THE LANDSCAPE CONTRACTOR OR AT THE DISCRETION OF THE PROJECT MANAGER.

PLANTING NOTES

FINAL LOCATION OF ALL PLANT MATERIAL SHALL BE SUBJECT TO APPROVAL OF THE PROJECT MANAGER PRIOR TO DIGGING ANY HOLES. THE LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR PROVIDING PROJECT MANAGER ADEQUATE ADVANCE NOTICE FOR ON-SITE APPROVALS. THE LANDSCAPE CONTRACTOR IS TO THE 12. ALL TREES WITHIN A SPECIES SHALL HAVE MATCHING FORM, UNLESS OTHERWISE FOLLOWING BEFORE BEGINNING INSTALLING PLANTINGS:

SHRUBS - LAY OUT THE ACTUAL CONTAINERS ON-SITE BEFORE DIGGING HOLES. TREES - STAKE THE LOCATIONS BEFORE DIGGING HOLES. ANY TREE PLANTED WITHOUT ITS FINAL LOCATION APPROVED BY THE PROJECT MANAGER MAY BE REQUESTED TO BE RELOCATED AT THE SOLE EXPENSE OF THE LANDSCAPE

8. THE LANDSCAPE CONTRACTOR SHALL NOTIFY THE PROJECT MANAGER AT LEAST 48 HOURS IN ADVANCE PRIOR TO COMMENCEMENT OF WORK TO COORDINATE PROJECT OBSERVATION SCHEDULES.

9. IF CONFLICTS ARISE BETWEEN THE ACTUAL SIZE OF AREAS ON THE SITE AND THE DRAWINGS, CONTACT THE PROJECT MANAGER FOR RESOLUTION.

10. IT IS THE LANDSCAPE CONTRACTOR'S RESPONSIBILITY TO FURNISH PLANTS FREE OF PESTS AND/OR DISEASES. PRE-SELECTED OR "PROJECT MANAGER TAGGED" PLANT MATERIAL MUST BE INSPECTED BY THE LANDSCAPE CONTRACTOR AND CERTIFIED PEST AND DISEASE FREE. IT IS THE LANDSCAPE CONTRACTOR'S OBLIGATION TO WARRANTY ALL PLANT MATERIAL PER THE SPECIFICATIONS.

11. GROUNDCOVERS AND SHRUBS ARE TO BE TRIANGULARLY SPACED UNLESS INDICATED ON THE PLANS.

DT-Is-trench-gyn

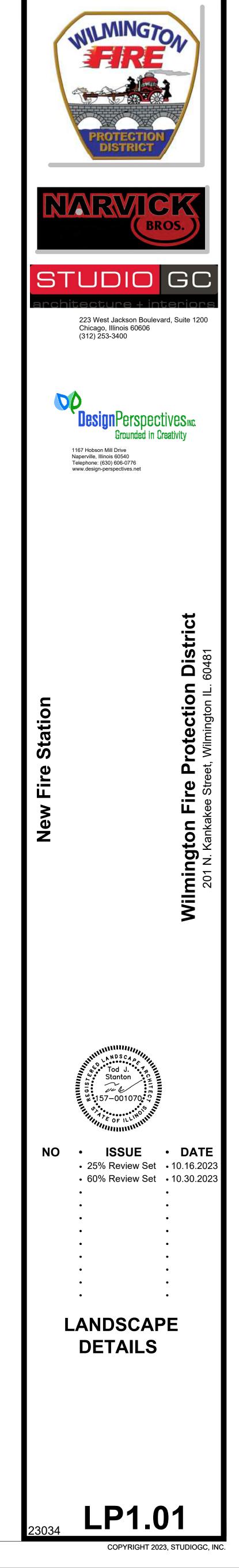
13. ALL TREES, SHRUB AND GROUNDCOVER AREAS (EXCLUDING TURF AND SLOPE AREAS) ARE TO BE MULCHED PER DETAILS.

14. ALL MULCH TO BE DOUBLE SHREDDED HARDWOOD MULCH, BROWN IN COLOR MINIMUM 4" THICK.

15. TREES SHALL BE SET BACK A MINIMUM OF TEN FEET (10') HORIZONTALLY FROM UTILITY STRUCTURES, INCLUDING, BUT NOT LIMITED TO, MANHOLES, VALVE VAULTS, VALVE BOXES, FIRE HYDRANTS, TRANSFORMERS AND SWITCH CANS. TREES SHALL BE SET BACK A MINIMUM OF FIVE (5') HORIZONTALLY FROM SANITARY SEWER AND WATER SERVICES. CONTRACTOR TO MAKE NECESSARY ADJUSTMENTS UNDER THE APPROVAL OF OWNER.

16. PLANTING RESTRICTIONS: PLANT DURING ONE OF THE FOLLOWING PERIODS. COORDINATE PLANTING PERIODS WITH MAINTENANCE PERIODS TO PROVIDE REQUIRED MAINTENANCE FROM DATE OF SUBSTANTIAL COMPLETION.

1. SPRING PLANTING: 5/1 - 6/15 2. FALL PLANTING: 9/15 - 12/1



1.1 RELATED DOCUMENTS

Retain or delete this article in all Sections of Project Manual.

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.
- 1.2 SUMMARY
- A. Furnish all trees, shrubs, and other plant materials, labor equipment, and non-plant materials required to complete installation of planting indicated on the Landscape Drawings and Details.

Furnish all soil preparation, fertilizer, soil mulching, trees, shrubs, groundcovers, sodding, bed mulching, labor and equipment required to landscape all areas as indicated on the Landscape Drawings.

- B. Section Includes:
- 1. Trees
- 2. Shrubs 3. Perennials
- 4. Annuals
- 5. Ornamental grasses
- 6. Mulch
- 7. Pruning 8. Guying and Staking
- 9. Landscape Edging
- 10. Tree Watering Devices
- 11. Seeding.
- 12. Hydroseeding.
- 13. Sodding.
- 14. Plugging. 15. Meadow grasses and wildflowers.
- 16. Turf renovation.
- 17. Erosion-control material(s).
- C. Related Requirements (If Used):
- 1. Section 02231 "Tree Protection and Trimming" for protecting, trimming, pruning, repairing, and replacing existing trees to remain that interfere with, or are affected by, execution of the Work.
- 2. Section 02810 "Design-Build Irrigation System".
- 3. Section 02300 "Earthwork".
- 1.3 ALLOWANCES
- A. Perform planting work under quantity allowances and only as authorized. Authorized work includes work required by Drawings and the Specifications and work authorized in writing by the Project Manager.
- B. Notify Project Manager weekly of extent of work performed that is attributable to quantity allowances.
- C. Furnish trees as part of tree allowance.
- 1.4 UNIT PRICES
- A. Work of this Section is affected by unit prices specified in Section 01270 "Unit Prices."
- B. Unit prices apply to authorized work covered by quantity allowances.
- C. Unit prices apply to additions to and deletions from the Work as authorized by Change Orders.
- 1.4 DEFINITIONS
- A. Backfill: The earth used to replace or the act of replacing earth in an excavation.
- B. Ball and Burlapped Stock: Plants dug with firm, natural balls of earth in which they were grown, with a ball size not less than diameter and depth recommended by ANSI Z60.1 for type and size of plant required; wrapped with burlap, tied, rigidly supported, and drum laced with twine with the root flare visible at the surface of the ball as recommended by ANSI Z60.1.
- C. Container-Grown Stock: Healthy, vigorous, well-rooted plants grown in a container, with a well-established root system reaching sides of container and maintaining a firm ball when removed from container. Container shall be rigid enough to hold ball shape and protect root mass during shipping and be sized according to ANSI Z60.1 for type and size of plant required.
- D. Finish Grade: Elevation of finished surface of planting soil.
- E. Pesticide: A substance or mixture intended for preventing, destroying, repelling, or mitigating a pest. Pesticides include insecticides, miticides, herbicides, fungicides, rodenticides, and molluscicides. They also includes substances or mixtures intended for use as a plant regulator, defoliant, or desiccant.
- F. Pests: Living organisms that occur where they are not desired or that cause damage to plants, animals, or people. Pests include insects, mites, grubs, mollusks (snails and slugs), rodents (gophers, moles, and mice), unwanted plants (weeds), fungi, bacteria, and viruses.
- G. Planting Area: Areas to be planted

damage caused by planting operations.

- H. Planting Soil: Existing, on-site soil; imported soil; or manufactured soil that has been modified with soil amendments and perhaps fertilizers to produce a soil mixture best for plant growth. Plant; Plants; Plant Material: The terms refer to vegetation in general, including trees, shrubs, vines, groundcovers, ornamental grasses, bulbs, plugs, or herbaceous vegetation.
- I. Root Flare: Also called "trunk flare." The area at the base of the plant's stem or trunk where the stem or trunk broadens to form roots; the area of transition between the root system and the stem or trunk
- J. Stem Girdling Roots: Roots that encircle the stems (trunks) of trees below the soil surface.
- K. Subgrade: The surface or elevation of subsoil remaining after excavation is complete, or the top surface of a fill or backfill before planting soil is placed.
- 1.6 COORDINATION
- A. Coordination with turf areas (lawns): Plant trees, shrubs, and other plants after finish grades are established and
- before planting turf areas unless otherwise indicated. 1. When planting trees, shrubs, and other plants after planting turf areas, protect turf areas, and promptly repair

- 1.7 SUBMITTALS
- A. Qualification Data: For landscape Installer
- B. Product Data: For each type of product.
- 2. Plant Photographs: Include color photographs in digital format of each species and size of plant materials as it will be furnished to the Project. Take photographs from an angle depicting true size and condition of the typical plant to be furnished. Include scale rod or other measuring device in each photograph. For species where more than ten (10) plants are required, include a minimum of three (3) photographs showing the

1. Plant Materials: Include quantities, sizes, quality, and sources for plant materials.

- average plant, the best quality plant, and the worst quality plant to be furnished. Identify each photograph with the full botanical name of the plant, plant size, and name of the growing nursery.
- C. Grower or Nursery Certifications
- 1. All State, Federal, or other certificates shall be submitted to the Project Manager prior to acceptance of plant material along with other information showing the source or origin.
- 2. Current grower or nursery certifications indicating that all contractor supplied plant material is healthy, vigorous, and free from insects, pests, plant diseases, and injuries.
- D. Certification of Topsoil Mixture: Submit topsoil mix test reports to Project Manager for review. If existing material is to be re-used, topsoil to be tested and reviewed by Project Manager
- E. Certification of each sod/seed mixture. Include identification of source and name and telephone number of supplier.
- F. Product Certificates: For fertilizers, from manufacturer.
- G. Pesticides and Herbicides: Product label and manufacturer's application instructions specific to Project.
- H. Samples: Submit physical samples of each of the following materials for approval. All samples shall be submitted in a one quart, clear, plastic bag (Ziploc type) or appropriate container. Submittals must be made prior to commencing any activities. All samples shall be clearly labeled with the following information.
 - Project Name Site Improvements
 - Supplier or distributor's name

Material name as shown on plans and specifications

Supplier or distributor's product name and/or order number

Required samples are as follows

- 1. Mulch 2. Compost
- I. Slow-Release, Tree-Watering Device: One (1) unit of each size required.
- J. Edging Materials and Accessories:
- 1. Manufacturer's product information sheet.

Nurserymen, Inc. (ANSI-Z 60.1-1990)

- 2. 12" length of Manufacturer's standard size, to verify color selected.
- 1.8 CONSTRUCTION SCHEDULE
- A. Prior to beginning installation of the landscape, the Contractor is to submit a project construction schedule to the Project Manager for approval. The schedule should include the areas and types of construction to be undertaken and the sequence which will be used to accomplish the completion of the project. Schedule must be submitted prior to commencing any
- B. At the completion of the work, furnish three (3) copies of written maintenance instructions to the Owner for maintenance and care of the landscaping. Instructions shall include directions for irrigation, weeding, pruning, fertilization, and spraying as required for continuance of proper maintenance through a full growing season and dormant period.
- C. Guarantee of Warranty: At completion of work, furnish written guarantee, and warranty, to the Owner based on the requirements of this section.
- 1.9 QUALITY ASSURANCE
- A. Reference Standards
- 1. U.S. Department of Agriculture Rules and Regulations under the Federal Seed Act and equal in quality to standards for Certified Seed.
- 2. Requirements for measurements, grading, branching, quality, and the balling and burlapping of plants listed in the plant list shall follow the current issue of American Standards for Nursery Stock issued by the American Association of
- 3. Plants shall equal or exceed the measurements specified in the plant list, which are minimum acceptable sizes. Plants shall be measured before pruning with branches in normal position. Any necessary pruning shall be done at the time of
- B. Quality of Materials
- 1. All materials shall be subject to inspection and approval. The Project Manager reserves the right to reject at any time or place, prior to acceptance, the work and all materials which in the Project Manager's opinion fails to meet these specification requirements.
- 2. Inspection is primarily for quality, however, other requirements are not waived even though visual inspection at the place of growth shall not preclude the right of rejection at the site. Inspection may be made periodically during installation of materials, at completion, and at the end of guarantee periods by the Project Manager. Plants shall have a habit of growth that is normal for the species. They shall be healthy, vigorous, and free from insect pests, plant diseases, and injuries. All plant material shall be inspected stock conforming to all State and Federal Regulations.
- 3. Trees and Shrubs: Measure with branches and trunks or canes in their normal position. Take height measurements from or near the top of the root flare for field-grown stock and container-grown stock. Measure main body of tree or shrub for height and spread; do not measure branches or roots tip to tip. Take caliper measurements 6 inches (150 mm) above the root flare for trees up to 4-inch (100-mm) caliper size, and 12 inches (300 mm) above the root flare for larger sizes.
- 4. Other Plants: Measure with stems, petioles, and foliage in their normal position.
- C. Installer Qualifications: A qualified landscape installer whose work has resulted in successful establishment of plants.
- 1. Professional Membership: Installer shall be a member in good standing of either the Professional Landcare Network or the American Nursery and Landscape Association.
- Requirements.'

2. Experience: Five years' experience in landscape installation in addition to requirements in Section 01400 "Quality

- 3. Installer's Field Supervision: Require Installer to maintain an experienced full-time supervisor on Project site when
- 4. Personnel Certifications: Installer's field supervisor shall have certification in one of the following categories from the Professional Landcare Network
- a. Landscape Industry Certified Technician Exterior.
- b. Landscape Industry Certified Horticultural Technician.
- 5. Pesticide Applicator: State licensed, commercial.
- D. Plant Material Observation: Project Manager may observe plant material either at place of growth or at site before planting for compliance with requirements for genus, species, variety, cultivar, size, and quality. Project Manager may also observe trees and shrubs further for size and condition of balls and root systems, pests, disease symptoms, injuries, and latent defects and may reject unsatisfactory or defective material at any time during progress of work. Remove rejected trees or shrubs immediately from Project site.
- 1. Notify Project Manager of sources of planting materials five days in advance of delivery to site.

- E. Vandalism: The Contractor will not be responsible for malicious destruction of plantings after final acceptance of the project. He will, however, be responsible for replacement of vandalized materials stored but not yet installed, and vandalized material prior to final acceptance. All cases of vandalism shall be promptly reported to the Owner. The Contractor shall inform the Owner in writing if additional protection must be installed to protect the landscaping from damage after installation.
- 1.1 DELIVERY, STORAGE, AND HANDLING
- A. Packing and Shipping
- 1. Deliver fertilizer to site in original unopened containers bearing the manufacturer's guaranteed chemical analysis, name, trade name, trademark, and conformance to State law. Notify Project Manager of delivery schedule in advance so material may be inspected upon arrival at the job site.
- 2. Deliver packaged materials in original, unopened containers showing weight, analysis and name of manufacturer, and indication of compliance with state and Federal laws, if applicable. Provide copies of delivery receipts for materials to be incorporated into the construction to the Project Manager as deliveries are made. Materials to be accounted for include: fertilizers, soil amendments, peat moss, manure, grass seed, plant tabs, and mulch.
- 3. Plants shall be containerized with limbs bound, properly wrapped and prepared for shipping in accordance with recognized standard practice. The root system shall be kept moist and plants shall be protected from adverse conditions due to climate and transportation, between the time they are dug and actual planting.
- 4. Each plant shall be identified by means of a grower's label affixed to the plant. The grower's label shall give the data necessary to indicate conformance to specifications. Use durable waterproof labels with water resistant ink which will remain legible for at least 60 days. Notify the Project Manager prior to delivery of plant materials to the site so that a pre-planting inspection may be made or indicate delivery schedule in advance so plant material may be inspected upon arrival at job site, whichever is more appropriate. Grower's labels shall be removed prior to the walk through for initial
- 5. Do not prune trees and shrubs before delivery.

2. Major damage shall be cause for rejection.

- 6. Handle planting stock by root ball. Do not drop plants. Do not lift plants by the trunk, stems, or foliage. The ball of the plant shall be natural, and the plant shall be handled by the ball at all times. All plants shall be protected at all times from drying out or other injury. Minor broken and damaged roots shall be pruned before planting.
- B. Acceptance at Site
- 1. Remove unacceptable plant material immediately from job site.
- 3. No balled or burlapped plant shall be accepted if the ball is broken or the trunk is loose in the ball.
- C. Storage and Protection
- 1. Deliver plants after preparations for planting have been completed, and install immediately. If planting is delayed more than six hours after delivery, set plants and trees in their appropriate aspect (sun, filtered sun, shade), protect from weather and mechanical damage, and keep roots moist.
- a. Heel-in bare-root stock. Soak roots that are in less than moist conditions in water for two hours. Reject plants
- b. Set balled stock on ground and cover ball with soil, peat moss, mulch, or other acceptable material. c. Do not remove container-grown stock from containers before time of planting.
- d. Water root systems of plants stored on-site deeply and thoroughly with a fine-mist spray. Water as often as necessary to maintain root systems in a moist, but not overly wet condition.
- 2. Protect bark, branches, and root systems from sun scald, drying, wind burn, sweating, whipping, and other handling and tying damage. Do not bend or bind-tie trees or shrubs in such a manner as they destroy their natural shape. Provide protective covering of plants during shipping and delivery. Do not drop plants during delivery and handling.
- 3. Apply antidesiccant to trees and shrubs using power spray to provide an adequate film over trunks (before wrapping), branches, stems, twigs, and foliage to protect during digging, handing, and transportation. a. If deciduous trees or shrubs are moved in full leaf, spray with antiesiccant at nursery before moving and again two
- weeks after planting. 4. Wrap trees and shrubs with burlap fabric over trunks, branches, stems, twigs, and foliage to protect from wind and other damage during digging, handling, and transportation.
- 5. Protect all existing and newly planted trees, shrubs, and groundcover within the areas of construction and related excavation as herein specified. Provide suitable barricades and/or fences as required.
- 6. Store bulbs in a dry place at 60 to 65 deg. F (16 to 18 deg. C) until planting. B. Sod: Harvest, deliver, store, and handle sod according to requirements in "Specifications for Turfgrass Sod Materials" and "Specifications for Turfgrass Sod Transplanting and Installation" sections in TPI's "Guideline Specifications to Turfgrass Sodding." Deliver sod within 24 hours of harvesting and in time for planting promptly. Protect sod from breakage and
- C. Bulk Materials
- 1. Do not dump or store bulk materials near structures, utilities, walkways and pavements, or on existing turf areas or
- 2. Provide erosion-control measures to prevent erosion or displacement of bulk materials; discharge of soil-bearing water runoff; and airborne dust reaching adjacent properties, water conveyance systems, or walkways.
- 3. Accompany each delivery of bulk materials with appropriate certificates.
- 1.11 PROJECT CONDITIONS
- A. The Contractor must examine the subgrade upon which work is to be performed, verify subgrade elevations, observe the conditions under which work is to be performed, verify suitability of the soil and notify the Project Manager in writing of unsatisfactory conditions. Do not proceed with the work until unsatisfactory conditions have been corrected in a manner acceptable to the Project Manager. Commencement of work shall mean acceptance of the site conditions.
- B. Existing Conditions
- 1. The site will be provided to the contractor within +/-0.2 foot finish grades.
- 2. Utilities Determine location of underground utilities and perform work in a manner which will avoid possible damage. Do not permit heavy equipment such as trucks, rollers, or bulldozers to damage utilities. Hand excavate when called for to minimize the possibility of damage to underground utilities. Maintain grade stakes set by others until removal is mutually agreed upon by all parties concerned. Any damage to utilities that may result in spite of protective measures must be completely corrected and repaired by the Contractor at no additional cost to the Owner.

1.12 SEQUENCING AND SCHEDULING

D. Coordination with Lawns

lawns resulting from planting operations.

- A. Planting Schedule Schedule each type of landscape work required during the normal season for such work in the area of the site. Establish dates for each type of work and establish a completion date. Correlate work with specified maintenance periods to provide maintenance until accepted by the Owner. Do not depart from the accepted schedule, except with written authorization. Submit request to the Project Manager for changes in the planting schedule. When delays in the planting schedule are
- unavoidable, include documentation of the reason for delay. B. Plant trees and shrubs during normal season for such work in the location of the project.
- C. Weather Limitations: Proceed with planting only when existing and forecasted weather conditions permit planting to be performed when beneficial and optimum results may be obtained. Apply products during favorable weather conditions according to manufacturer's written instructions.

Plant trees and shrubs after final grades are established and prior to planting of lawns, unless otherwise acceptable to the

Project Manager. If planting of trees and shrubs occurs after lawn work, protect lawn areas and promptly repair damage to





223 West Jackson Boulevard, Suite 1200 Chicago, Illinois 60606 (312) 253-3400

STUDIO GC



www.design-perspectives.ne

Wilmington



 25% Review Set • 10.16.2023 60% Review Set • 10.30.2023

DATE

LANDSCAPE SPECIFICATIONS

1.13 WARRANTY AND GUARANTEE

- A. Guarantee trees, shrubs, groundcovers and all plant material for a period of one year from the date of final acceptance against defects not resulting from neglect of Owner, or abuse and damage by others.
- B. For a period of one year after acceptance of work, at no additional cost to the Owner, the Contractor is to replace any plants that are dead, or that are in unhealthy or unsightly condition, or have lost their natural shape due to dead branches or excessive pruning and replace planting materials/products due to faulty performance and/or deterioration beyond normal weathering. Inadequate maintenance by the Owner shall not be cause for replacement. All replacement planting is to be
- C. Replacement plants shall be of the same variety and size or larger as originally specified in the plant list. Plants shall be
- D. A one year warranty shall also apply to the plants replaced at the first warranty walk-through.
- E. Begin interim maintenance period immediately after planting of landscape materials, and after planting of lawn areas, and continue interim maintenance until landscape work is deemed substantially complete and accepted by the Owner or
- F. The maintenance period, as specified on the bid form, will commence when all areas have received substantial completion. Large or phased projects may require adjustments to this date. This can be negotiated with the Owner and Landscape Architect after installation has begun.
- G. Meet with the Owner prior to final acceptance, and prior to the termination of the maintenance period, to go over maintenance instructions provided by the contractor, as part of the contract close out submittals.

PART 2 - PRODUCTS

A. Mulches

- 1. Refer to plans for specified materials.
- B. Stakes and Guys (Use only if specified)
- 1. Stakes 6' and 2' long, heavy-duty t-bar steel posts.
- 2. Guys 12 gauge galvanized steel wire 3. Nylon straps - $1 \frac{1}{2}$ ", with metal grommeted ends.
- 4. ³/₄" White, PVC pipe, 24" lengths.

C. Tree wrapping

Clark's Tree Wrap, 4" wide, designed to prevent winter bark injury. Secure with flexible grafting ties.

- D. Landscape Edging (Use only if specified)
- 1. Steel edging: Standard commercial-steel edging, fabricated in sections of standard lengths, with loops stamped from or
- welded to face of sections to receive stakes. a. Manufacturer: Sure-loc Steel Edging, 800-787-3562, or equal
- 2. Edging size: ½" x 5" x 16", unless specified otherwise on plans.
- 3. Stakes: Tapered steel, a minimum of 12 inches long.
- 4. Accessories: Standard tapered ends, corners, and splicers.
- 5. Finish: Black powder coat, unless specified otherwise on plans.
- E. Tree-Watering Devices
- 1. Slow-Release Watering Device: Standard product manufactured for drip irrigation of plants and emptying its water contents over 5 to 9 hours; manufactured from UV-light stabilized nylon-reinforced polyethylene sheet, PVC, or HDPE

- a. Manufacturer: Treegator by Spectrum Products, Inc., 866-873-3428, or equal
- 1. Grass seed: Fresh clean, dry, new-crop seed complying with AOSA's "Rules for Testing Seeds" for purity and

- germination tolerances.
- 2. Refer to plans for seed mixture.
- 3. Seed mixture is to be applied at a rate of 800 lbs/acre.

G. Turf Sod

- 1. Number 1 Quality/Premium, including limitations on thatch, weeds, diseases, nematodes, and insects, complying with "Specifications for Turfgrass Sod Materials" in TPI's "Guideline Specifications to Turfgrass Sodding." Furnish viable sod of uniform density, color, and texture that is strongly rooted and capable of vigorous growth and development
- 2. Refer to plans for specified sod blend.
- H. Native Prairie, Bioswale, Detention Area, and/or Wetland Seed
- 1. Fresh, clean, and dry new seed from a source specializing in native seed production. Seed shall be sourced no more
- than 350 miles from the Project site. 2. Refer to plans for seed mixture.
- 3. Refer to plans for seeding rate.
- 4. Install a mycorrhizal inoculant with seed mix at a rate of 40 lbs/acre.
- 5. Refer to plans for cover crop species and seeding rate. At no time should annual or perennial Rye (Lolium multiflorum or perenne) be utilized as a cover crop.

Fertilizer

- 1. Commercial-grade complete fertilizer of neutral character, consisting of fast- and slow-release nitrogen, 50 percent
- derived from natural organic sources of urea formaldehyde, phosphorous, and potassium in the following composition: a. In the spring (April 1-15), fertilize trees, shrubs, ornamental grasses, and groundcover with 18-7-10 formulation, slow release fertilizer at the rate of 6 oz/1,000 sq. ft. Use a broadcast method for application of fertilizer.
- (a) For lawns areas (turf grass) April 1-15: Application of 20-5-10-1% Fe 25% SCU at the rate of 5 lbs. per 1,000 sq. ft. for 1 lb. Actual Nitrogen per 1,000 sq. ft. Thoroughly sweep curb, gutter, and walks after application of fertilizer and prior to irrigating. Do not apply fertilizer during rainfall or when rainfall is imminent. Protect all
- concrete fr' (v) Trace element forms Zinc, Copper, Boron, and Manganese
- August 1-15: Repeat June application October 1-15: 24-6-12 no Fe 30%SCU

anchorage system for slope conditions

J. Pesticides

- 1. General: Pesticide, registered and approved by the EPA, acceptable to authorities having jurisdiction, and of type recommended by manufacturer for each specific problem and as required for Project conditions and application. Do not use restricted pesticides unless authorized in writing by authorities having jurisdiction.
- 2. Pre-Emergent Herbicide (Selective and Nonselective): Effective for controlling the germination or growth of weeds within planted areas at the soil level directly below the mulch layer.
- 3. Post-Emergent Herbicide (Selective and Nonselective): Effective for controlling weed growth that has already germinated.

K. Erosion Control Materials

- 1. Erosion-Control Blankets: Biodegradable wood excelsior, straw, or coconut-fiber mat enclosed in a photodegradable plastic mesh. Include manufacturer's recommended steel wire staples, 6 inches (150 mm) long.
- 2. Erosion-Control Fiber Mesh: Biodegradable burlap or spun-coir mesh, a minimum of 0.92 lb/sq. yd. (0.5 kg/sq. m),
- with 50 to 65 percent open area. Include manufacturer's recommended steel wire staples, 6 inches (150 mm) long. 3. Erosion-Control Mats: Cellular, nonbiodegradable slope-stabilization mats designed to isolate and contain small areas of soil over steeply sloped surface, mat thickness as specified on the Drawings. Include manufacturer's recommended

1. Free of substances harmful to plant growth. Be responsible for furnishing water from underground sprinkler system, quick couplers, or other source.

Trees, Shrubs, Ornamental Grasses, and Perennials

- 1. Provide nursery grown trees, shrubs, ornamental grasses, and perennials except as otherwise indicated, grown in a recognized nursery in accordance with good horticultural practice, with healthy root systems developed by transplanting or root pruning. Provide only healthy vigorous stock, free of diseases, insects, eggs, larvae, and defects such as knots, sunscald, injuries, abrasions, or disfigurement. Plants grown in Hardiness Zones 2, 3, 4, 5, and 6 only, will be accepted. Hardiness Zones are defined in U.S. Department of Agriculture publications. Grower's certificates may be required when doubt exists as to the origin of the plant material.
- 2. Provide trees, shrubs, ornamental grasses, and perennials true to name and variety established by the American Joint
- Committee on Horticultural Nomenclature "Standardized Plant Names", Second Edition, 1942. 3. Provide trees, shrubs, ornamental grasses, and perennials of the size shown or specified in the plant list and in accordance with the dimensional relationship requirements of ANSI Z60.1 for the kind and type of plant material required. Plant material of larger than specified size may be used, in which case the sizes of the root balls will be
- increased proportionately. 4. Label each tree and shrub with a securely attached waterproof tag bearing legible designation of botanical and common
- name and size during shipping. Labels shall be removed prior to initial acceptance (substantial completion). 5. Where formal arrangements or consecutive order of plants are shown, select stock for uniform height and spread, and temporarily label with numbers (if necessary) to assure symmetry in planting. Labels shall be removed prior to initial
- acceptance (substantial completion). 6. Provide plant material complying with the recommendations and requirements of ANSI Z60.1 "Standard For Nursery Stock" and as further specified.

- 2. Where shade trees are required, provide single stem trees with straight trunk and intact leader, free of branches to a
- 3. Where small trees of upright or spreading type are required, provide trees with single stem, branched or pruned naturally according to species and type, and with the relationship of caliper and branching recommended by ANSI
- 4. Where shown as "bush form" provide trees with 3 or more stems starting close to the ground in the manner of a shrub.
- 5. Where shown as a "clump form" provide trees with 3 or more stems starting from the ground. 6. Provide balled and burlapped deciduous trees unless noted as container plants. Balled and burlapped plants shall be
- dug with firm, natural balls of earth of the diameter specified or larger, to encompass the fibrous and feeding root system necessary for full recovery of the plant. No balled or burlapped plant shall be accepted if the ball is broken or the trunk is loose in the ball.
- 7. All labels and tags shall be removed prior to initial acceptance (substantial completion).

O. Deciduous Shrubs and Groundcovers

- 1. Provide deciduous shrubs with not less than the minimum number of canes required by ANSI Z60.1 for the type and
- 2. Plants furnished in containers shall have been grown in pots, cans, or baskets long enough to have sufficient roots to hold earth together intact after removal from container, without being root bound.

P. Coniferous and Broadleaf Evergreens

- 1. Provide evergreens of the size shown. Dimension indicates minimum spread for spreading and semi-spreading type evergreens and height for all other types such as globe, dwarf, cone, pyramidal, broad- up-right, and columnar.

- 3. Trees shall exhibit consistent growth periods, and shall not exhibit signs of accelerated growth. 4. Provide balled and burlapped evergreen trees unless noted as container or collected stock.
- 6. Trees shall contain a central dominant leader with evenly spaced branches. Plants containing multiple central leaders
- will be rejected, unless the Project Manager has made special exception or tagged plant material at the nursery.
- 7. All labels and tags shall be removed prior to initial acceptance (substantial completion).

Q. Requirements for Balled and Burlapped Stock:

- 1. Where shown or specified to be balled and burlapped, provide trees and shrubs dug with a firm, natural ball of earth in
- 2. Provide ball size of not less than the diameter and depth recommended by ANSI Z60.1 for the type and size of tree or shrub required. Increase ball size or modify ratio of depth to diameter as required to encompass the fibrous and feeding root system necessary for full recovery of trees or shrubs subject to unusual or atypical conditions of growth, soil
- 3. Wrap and tie earth ball as recommended by ANSI Z60.1 for the size of balls required. Drum-lace balls with a diameter of thirty inches (30") or greater.
- 4. All labels and tags shall be removed prior to initial acceptance (substantial completion).

R. Requirements for Container Grown Stock

- 1. Where specified as acceptable, provide healthy, vigorous well rooted shrubs or ornamental grasses established in the container in which they are sold.
- 2. No bare rooted or recently containerized stock will be accepted.
- 3. Established container stock is defined as a tree or shrub transplanted into a container and grown in the container for a length of time sufficient to develop new fibrous roots so that the root mass will retain its shape and hold together when
- 4. Use rigid container which will hold ball shape and protect root mass during shipment.
- the kind, type, and size of trees and shrubs required.
- 6. All labels and tags shall be removed prior to initial acceptance (substantial completion).

S. Plugs

- shall be sourced no more than 350 miles from the Project site.
- 2. Plugs shall be thoroughly rooted throughout the container.
- 3. See plans for species and spacing.
- 4. All plug installations shall be accompanied by goose exclosure, per the Drawing details, for up to 12 months after installation. Contractor to remove goose exclosure after 12 months.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine areas to be planted for compliance with requirements and other conditions affecting installation and performance
- 1. Verify that no foreign or deleterious material or liquid such as paint, paint washout, concrete slurry, concrete layers or chunks, cement, plaster, oils, gasoline, diesel fuel, paint thinner, turpentine, tar, roofing compound, or acid has been
- 2. Verify that plants and vehicles loaded with plants can travel to planting locations with adequate overhead clearance.
- 3. Suspend planting operations during periods of excessive soil moisture until the moisture content reaches acceptable levels to attain the required results.
- B. If contamination by foreign or deleterious material or liquid is present in soil within a planting area, remove the soil and contamination as directed by Project Manager and replace with new planting soil. C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Protect structures; utilities; sidewalks; pavements; and other facilities, trees, shrubs, and plantings from damage caused by
- 1. Protect adjacent and adjoining areas from hydroseeding and hydromulching overspray if used.
- 2. Protect grade stakes set by others until directed to remove them.
- B. Install erosion-control measures to prevent erosion or displacement of soils and discharge of soil-bearing water runoff or airborne dust to adjacent properties and walkways.

3.3 INSTALLATION

- A. General: Prepare planting area for soil placement and mix planting soil as indicated on the drawings.
- B. Before planting, obtain Project Manager's acceptance of finish grading; restore planting areas if eroded or otherwise disturbed after finish grading.
- C. Proceed with and complete the landscape work as rapidly as portions of the site become available, working within the seasonal limitations for each kind of landscape work required.
- D. Cooperate with any other Contractors and trades which may be working in and adjacent to the landscape work areas. Examine drawings which show the development of the entire site and become familiar with the scope of all work required.
- 3.4 FINAL PLANT LOCATIONS
- A. Stake location of individual trees, for approval by Project Manager, prior to planting or excavating
- B. If a new tree or shrub relocation is necessary due to interference with underground piping or wiring, the Contractor shall notify the Project Manager and receive approval of a new location.

D. Make minor adjustments as requested by the Project Manager, or as necessary to avoid conflicts with utility locations.

- C. The Project Manager must approve the precise location of all plants prior to pit excavation and installation.

3.5 EXCAVATION FOR PLANTING

- A. Where rubble fill is encountered, notify Project Manager and prepare planting pits properly by removal of rubble or other
- B. If rock, underground construction work, or other obstructions are encountered in excavation for planting of trees or shrubs, notify the Project Manager. If necessary, new locations may be selected by the Project Manager
- C. If subsoil conditions indicate the retention of water in planting areas, as shown by seepage or other evidence indication the presence of underground water, notify the Project Manager before backfilling.
- D. Planting Pits and Trenches: Excavate circular planting pits
- 1. Excavate planting pits with sides sloping at a 45-degree angle. Excavations with vertical sides are unacceptable. Trim perimeter of bottom leaving center area of bottom raised slightly to support root ball and assist in drainage away from center. Do not further disturb base. Ensure that root ball will sit on undisturbed base soil to prevent settling. Scarify sides of planting pit smeared or smoothed during excavation.
- 2. Excavate at least 2-times the diameter of the root ball in width.
- 3. Do not excavate deeper than depth of root ball, measured from the root flare to the bottom of the root ball.
- 4. If area under the plant was initially dug too deep, add soil to raise it to the correct level and thoroughly tamp the added soil to prevent settling.
- 5. Maintain angles of repose of adjacent materials to ensure stability. Do not excavate subgrades of adjacent paving
- structures, hardscapes, or other new or existing improvements 6. Maintain supervision of excavations during working hours.
- 7. Keep excavations covered or otherwise protected when unattended by Installer's personnel.
- 8. If drain tile is indicated on Drawings, or required under planting areas, excavate to top of porous backfill over tile.
- E. At the Project Manager's option, plant pits will be filled with water and must drain completely within twenty-four hours to be acceptable. Pits that do not drain shall be provided with twelve inch (12") diameter X thirty six inch (36") deep auger holes (one per tree pit) to be filled with 1 1/2" gravel. A change order will be issued if the Project Manager determines drain holes shall be installed.
- F. Backfill Soil: Subsoil and topsoil removed from excavation may be used as backfill soil unless otherwise indicated.
- 3.6 TREE, SHRUB, ORNAMENTAL GRASS, AND PERENNIAL PLANTING
- A. Inspection: At time of planting, verify that root flare is visible at top of root ball according to ANSI Z60.1. If root flare is not visible, remove soil in a level manner from the root ball to where the top-most root emerges from the trunk. After soil
- removal to expose the root flare, verify that root ball still meets size requirements. B. Roots: Remove stem girdling roots and kinked roots. Remove injured roots by cutting cleanly; do not break.
- C. Set container grown stock, excavate as specified for balled and burlapped stock except container width and depth shall govern. Pit shall be at least twice as wide as the container.
- D. Set tree ball, plumb and in the center of pit or trench with top of ball 2", minimum, above adjacent landscape grades. Remove burlap from sides and tops of balls, but do not remove from under balls. Remove platforms, if any, before setting. Do not use stock if ball is cracked, or broken before or during planting operation. When setting place additional backfill around base and sides of ball, and work each layer to settle backfill and eliminate voids and air pockets. When excavation is approximately 2/3 full, water thoroughly before placing remainder of backfill. Repeat watering until no more is absorbed. Water again after placing final layer of backfill. No burlap shall be pulled out from under balls.
- E. A minimum of three-quarters of the wire basket and surplus nylon or binding shall be completely removed, taking care not
- to damage the root ball. Any roots which are bruised or broken shall be pruned at the time of planting. F. Set container grown stock as specified for balled and burlapped stock, except cut cans on 2 sides with a metal cutter, and remove bottoms of wooden boxes before setting. Carefully remove cans and sides of wooden boxes after partial backfilling
- G. Set out ornamental grasses, perennials, and groundcovers at spacing noted on the Plans in even rows with triangular spacing. Dig holes large enough for spreading of roots. Work soil around roots to eliminate air pockets and leave a slight saucer indentation around plants to hold water.
- H. For plantings in non-turf areas, provide berm around the edge of excavations to form shallow saucer to collect water and to
- I. After planting, the Contractor shall water each plant regularly until final acceptance.

so as not to damage root balls.

- J. All labels and tags shall be removed. 3.7 EDGING INSTALLATION
- A. Steel Edging: Install steel edging where indicated on the Drawings according to manufacturer's written instructions. Anchor with steel stakes spaced approximately 30 inches apart, driven below top elevation of edging.
- B. Shovel-Cut (Spade) Edging: Separate mulched areas from turf areas with a 45-degree, 4 6 inch deep shovel-cut edge at bedlines shown on the Drawings.







STUDIO GC

(312) 253-3400



www.design-perspectives.ne

Wilmington

DATE



25% Review Set • 10.16.2023

60% Review Set • 10.30.2023

NO

LANDSCAPE

SPECIFICATIONS

done no later than the succeeding season.

planted as originally specified. All areas damaged by planting or replacement operations shall be fully restored to their original condition as specified. Remove all dead or defective plant material from the site immediately.

maintenance requirements of the project. Note that information conveyed to the Owner shall be consistent with the

N. Deciduous Trees

- 1. Provide trees of the height and caliper listed or shown.
- Z60.1, unless otherwise shown.
- 3. All labels and tags shall be removed prior to initial acceptance (substantial completion).
- 2. Provide evergreens with well-balanced form complying with requirements for other size relationships to the primary
- 5. Foliage shall have a good intense color.
- - conditions, or horticultural practice.

- 5. Provide trees and shrubs established in containers of not less than the minimum sizes recommended by ANSI Z60.1 for
- 1. Provide plugs in 2-3/8" square x 3-3/4" deep open-bottomed pots from a source specializing in native species. Plugs

- deposited in soil within a planting area.
- 4. Uniformly moisten excessively dry soil that is not workable or which is dusty.

- C. Mow-Strip/Maintenance Edge Installation:
- 1. Excavate for mow strip or maintenance edge as indicated on Drawings.
- Compact subgrade uniformly beneath mow strip or maintenance edge.
 For mow strips, apply nonselective, pre-emergent herbicide that inhibits growth of grass and weeds. For maintenance edges, install 6-oz non-woven geotextile fabric as shown on the Drawing Details.
- 4. Install steel edging, delineating the edge of the mow strip or maintenance edge.
- 5. Place indicated thickness of mulch or stone.
- 6. Rake mulch to a uniform surface level with adjacent finish grades.
- D. Outline Edger lines with stakes or paint for acceptance by Project Manager before installing irrigation.
- E. Spade cut edger shall be in all locations identified on the Drawings. Minor fine tuning of these lines may be required after the placement of sod

3.8 MULCHING

- A. Fine grade all planting beds to be mulched allowing for full depth of specified mulch.
- B. Place specified mulch evenly over all areas at depth indicated on plans.
- C. Rake and feather finish grade of mulch level and ½" below adjacent edger surfaces (if edger is specified).
- D. Make sure mulch is at full depth at adjacent walks and paved surfaces and that mulch doesn't protrude above these surfaces.
- E. Mulch a 36" diameter ring around all trees in turf areas with specified depth of wood mulch, after irrigation areas have been watered in.
- F. All trees and shrubs in native areas are to have a mulch ring equal to the diameter of the planting pit. Mulch shall be a uniform three inches in depth. Do not remove saucer (or berm) around plants in native areas when mulching.

3.9 PRUNING

- A. Remove only dead, dying, or broken branches. Do not prune for shape.
- B. Do not cut tree leaders, and remove only injured or dead branches from flowering trees, if any.
- C. Prune shrubs to retain their natural character and shape, and to accomplish their use in the landscape design.
- D. Do not apply pruning paint to wounds.
- E. Required shrub sizes are the size after pruning.
- F. Remove and replace excessively pruned or deformed stock resulting from improper pruning.

A. Standard guying system

3.10 GUYING AND STAKING

1. Pound stakes into undisturbed soil beyond the planting pit so that stake is secure (2' deep minimum). Secure wire through metal grommets on nylon strap and wrap above first branch or at mid-point of tree. Secure guy wire to stake so that it is taut but allows some movement and so that no sharp projection of wire are extending from post. Adjust tension on wire if needed. Flag guy wire with 3/4" PVC pipe for visibility.

B. Alternate (conifer) guying system

1. Pound stakes into undisturbed soil beyond the planting pit so that stake is secure (2' deep min.), angling away from planting pit and so that top is flush with finish grade. Secure wire through metal grommets on canvas strap and wrap at mid-point of tree. Secure guy wire to stake so that it is taut but not overly tight and so that no sharp projection of wire are extending from post. Adjust tension on wire if needed. Flag guy wire with 3/4" PVC for visibility.

3.11 INSTALLING SLOW-RELEASE WATERING DEVICE

- A. Provide one device for each tree.
- B. Place device on top of the mulch at base of tree stem and fill with water according to manufacturer's written instructions.

3.12 MECHANIZED TREE-SPADE PLANTING (FOR ON-SITE TRANSPLANTS, IF INDICATED ON PLANS)

- A. Trees may be planted with an approved mechanized tree spade at the designated locations. Do not use tree spade to move trees larger than the maximum size allowed for a similar field-grown, balled-and-burlapped root ball diameter according to ANSI Z60.1, or larger than manufacturer's maximum size recommendation for the tree spade being used, whichever is smaller.
- B. Use the same tree spade to excavate the planting hole as will be used to extract and transport the tree.
- C. When extracting the tree, center the trunk within the tree spade and move tree with a solid ball of earth.
- D. Cut exposed roots cleanly during transplanting operations.
- E. Plant trees following procedures in "Tree, Shrub, Ornamental Grass, and Perennial Planting" Article.
- F. Where possible, orient the tree in the same direction as in its original location (north side north).

3.13 PLACING SOIL IN PLANTERS

- A. Place a layer of drainage gravel at least 4 inches thick in bottom of planter. Cover bottom with filter fabric and wrap filter fabric 4 inches up on all sides. Duct tape along the entire top edge of filter fabric to secure the filter fabric against the sides during the soil-filling process.
- B. Fill planter with planting soil. Place soil in lightly compacted layers to an elevation of 1-1/2 inches below top of planter, allowing natural settlement.

3.14 TURF AREA PREPARATION

- A. General: Prepare planting area for soil placement and mix planting soil as indicated on the Drawings.
- B. Placing Planting Soil: Place planting soil as indicated on the Drawings.
- 1. Reduce elevation of planting soil to allow for soil thickness of sod.
- C. Moisten prepared area before planting if soil is dry. Water thoroughly and allow surface to dry before planting. Do not create muddy soil.
- D. Before planting, obtain Project Manager's acceptance of finish grading; restore planting areas if eroded or otherwise disturbed after finish grading.

3.15 PREPARATION FOR EROSION-CONTROL MATERIALS

- A. Prepare area as specified in "Turf Area Preparation" Article.
- B. For erosion-control mats, install planting soil in two lifts, with second lift equal to thickness of erosion-control mats. Install erosion-control mat and fasten as recommended by material manufacturer.
- C. Fill cells of erosion-control mat with planting soil and compact before planting.
- D. For erosion-control blanket or mesh, install from top of slope, working downward, and as recommended by material manufacturer for site conditions. Fasten as recommended by material manufacturer.
- E. Moisten prepared area before planting if surface is dry. Water thoroughly and allow surface to dry before planting. Do not create muddy soil.

3.16 SEEDING

- A. Sow seed with spreader or seeding machine. Do not broadcast or drop seed when wind velocity exceeds 5 mph (8 km/h).
- 1. Evenly distribute seed by sowing equal quantities in two directions at right angles to each other.
- 2. Do not use wet seed or seed that is moldy or otherwise damaged.
- 3. Do not seed against existing trees. Limit extent of seed to outside edge of planting saucer.
- B. Sow seed at a total rate according to the written recommendations of the seed supplier
- C. Rake seed lightly into top 1/8 inch (3 mm) of soil, roll lightly, and water with fine spray
- D. Protect seeded areas with slopes exceeding 1:4 with erosion-control blanket installed and stapled according to manufacturer's written instructions.
- E. Protect seeded areas with erosion-control mats where indicated on Drawings; install and anchor according to manufacturer's written instructions.
- F. Protect seeded areas with slopes not exceeding 1:4 by spreading straw mulch. Spread uniformly at a minimum rate of 2 tons/acre > to form a continuous blanket 1-1/2 inches (38 mm) in loose thickness over seeded areas. Spread by hand, blower, or other suitable equipment.
- 1. Anchor straw mulch by crimping into soil with suitable mechanical equipment.
- 2. Bond straw mulch by spraying with asphalt emulsion at a rate of 10 to 13 gal./1000 sq. ft. (38 to 49 L/92.9 sq. m) Take precautions to prevent damage or staining of structures or other plantings adjacent to mulched areas. Immediately clean damaged or stained areas.
- G. Protect seeded areas from hot, dry weather or drying winds by applying compost mulch within 24 hours after completing seeding operations. Soak areas, scatter mulch uniformly to a thickness of 3/16 inch (4.8 mm) and roll surface smooth.

3.17 HYDROSEEDING

- A. Hydroseeding: Mix specified seed, fertilizer, and fiber mulch in water, using equipment specifically designed for hydroseed application. Continue mixing until uniformly blended into homogeneous slurry suitable for hydraulic application.
- 1. Mix slurry with fiber-mulch manufacturer's recommended tackifier.
- 2. Spray-apply slurry uniformly to all areas to be seeded in a one-step process. Apply slurry at a rate so that mulch component is deposited at not less than 1500-lb/acre (15.6-kg/92.9 sq. m) dry weight, and seed component is deposited at not less than the specified seed-sowing rate.
- 3. Spray-apply slurry uniformly to all areas to be seeded in a two-step process. Apply first slurry coat at a rate so that mulch component is deposited at not less than 500-lb/acre (5.2-kg/92.9 sq. m) dry weight, and seed component is deposited at not less than the specified seed-sowing rate. Apply slurry cover coat of fiber mulch (hydromulching) at a rate of 1000 lb/acre (10.4 kg/92.9 sq. m).

3.18 SODDING

- A. Lay sod within 24 hours of harvesting. Do not lay sod if dormant or if ground is frozen or muddy.
- B. Lay sod to form a solid mass with tightly fitted joints. Butt ends and sides of sod; do not stretch or overlap. Stagger sod strips or pads to offset joints in adjacent courses. Avoid damage to soil or sod during installation. Tamp and roll lightly to ensure contact with soil, eliminate air pockets, and form a smooth surface. Work sifted soil or fine sand into minor cracks between pieces of sod; remove excess to avoid smothering sod and adjacent grass.
- 1. Lay sod across slopes exceeding 1:3.
- 2. Anchor sod on slopes exceeding 1:6 with bio-degradable stakes spaced as recommended by sod manufacturer but not less than two anchors per sod strip to prevent slippage.
- C. Saturate sod with fine water spray within two hours of planting. During first week after planting, water daily or more frequently as necessary to maintain moist soil to a minimum depth of 1-1/2 inches (38 mm) below sod.

3.19 PLUGGING

A. Plant plugs in holes or furrows, at spacings indicated on the Drawings in triangular pattern. On slopes, contour furrows to

3.20 TURF RENOVATION

- A. Renovate existing turf where indicated.
- B. Renovate turf damaged by Contractor's operations, such as storage of materials or equipment and movement of vehicles.
- 1. Reestablish turf where settlement or washouts occur or where minor regrading is required.
- 2. Install new planting soil as required.
- C. Remove sod and vegetation from diseased or unsatisfactory turf areas; do not bury in soil.
- D. Remove topsoil containing foreign materials, such as oil drippings, fuel spills, stones, gravel, and other construction materials resulting from Contractor's operations, and replace with new planting soil.
- E. Mow, dethatch, core aerate, and rake existing turf.
- F. Remove weeds before seeding. Where weeds are extensive, apply selective herbicides as required. Do not use pre-emergence herbicides.
- G. Remove waste and foreign materials, including weeds, soil cores, grass, vegetation, and turf, and legally dispose of them off Owner's property.
- H. Till stripped, bare, and compacted areas thoroughly to a soil depth of 6 inches (150 mm).
- I. Apply soil amendments as required based on site-specific soil conditions and initial fertilizer required for establishing new turf and mix thoroughly into top 4 inches (100 mm) of existing soil. Install new planting soil to fill low spots and meet finish grades.
- 1. Initial Fertilizer: Slow-release fertilizer applied according to manufacturer's recommendations.
- J. Apply seed and protect with straw mulch or sod (see Drawings) as required for new turf.
- K. Water newly planted areas and keep moist until new turf is established.

3.21 TURF MAINTENANCE

- A. General: Maintain and establish turf by watering, fertilizing, weeding, mowing, trimming, replanting, and performing other operations as required to establish healthy, viable turf. Roll, regrade, and replant bare or eroded areas and remulch to produce a uniformly smooth turf. Provide materials and installation the same as those used in the original installation.
- 1. Fill in as necessary soil subsidence that may occur because of settling or other processes. Replace materials and turf damaged or lost in areas of subsidence.
- 2. In areas where mulch or blanket has been disturbed by wind or maintenance operations, add new mulch/blanket and anchor as required to prevent displacement.
- 3. Apply treatments as required to keep turf and soil free of pests and pathogens or disease. Use integrated pest management practices whenever possible to minimize the use of pesticides and reduce hazards.

B. Watering:

- 1. Schedule watering to prevent wilting, puddling, erosion, and displacement of seed or mulch. Lay out temporary watering system to avoid walking over muddy or newly planted areas.
- 2. Water turf with fine spray at a minimum rate of 1 inch (25 mm) per week unless rainfall precipitation is adequate.

- C. Mow turf as soon as top growth is tall enough to cut. Repeat mowing to maintain specified height without cutting more than one-third of grass height. Remove no more than one-third of grass-leaf growth in initial or subsequent mowings. Do not delay mowing until grass blades bend over and become matted. Do not mow when grass is wet. Schedule initial and subsequent mowings to maintain proper grass height
- D. Turf Post-fertilization: Apply as noted in Materials Article, I. Fertilizer, based on season.

3.22 SATISFACTORY TURF

- A. Turf installations shall meet the following criteria as determined by Project Manager:
 - 1. Satisfactory Seeded Turf: At end of maintenance period, a healthy, uniform, close stand of grass has been established, free of weeds and surface irregularities, with coverage exceeding 90 percent over any 10 sq. ft. (0.92 sq. m) and bare spots not exceeding 5 by 5 inches (125 by 125 mm)
- 2. Satisfactory Sodded Turf: At end of maintenance period, a healthy, well-rooted, even-colored, viable turf has been established, free of weeds, open joints, bare areas, and surface irregularities.
- B. Use specified materials to reestablish turf that does not comply with requirements, and continue maintenance until turf is

3.23 PESTICIDE APPLICATION

- A. Apply pesticides and other chemical products and biological control agents according to requirements of authorities having jurisdiction and manufacturer's written recommendations. Coordinate applications with Owner's operations and others in proximity to the Work. Notify Owner before each application is performed.
- B. Pre-Emergent Herbicides (Selective and Nonselective): Apply to tree, shrub, and groundcover areas according to manufacturer's written recommendations. Do not apply to seeded areas.
- C. Post-Emergent Herbicides (Selective and Nonselective): Apply only as necessary to treat already-germinated weeds and according to manufacturer's written recommendations.

3.24 FIELD QUALITY CONTROL

- A. When all the landscape work is completed, the Project Manager shall, upon seven (7) calendar days advance notice, make an inspection of the landscape work to determine if the work is complete. The Project Manager shall prepare a punch list of items improperly installed, inadequately sized or otherwise deficient based on the findings of his inspection. The punch list shall be completed not more than seven (7) working days after the field inspection. When the Contractor has remedied all deficiencies and completed all items on the punch list, the Contractor shall request another inspection by the Project Manager to determine whether the deficiencies have been adequately corrected. Once the punch list items have been corrected and re-inspected, the Project Manager shall issue a written certificate to the Owner who will then respond to the Contractor in writing formally accepting the work and beginning the warranty and guarantee period.
- 3. Additional landscape inspections shall be conducted upon request by the Project Manager, to determine the condition of the work at the completion of the guarantee period.
- C. The required maintenance instructions shall be forwarded to the Owner's representative prior to the final acceptance to inform the Owner of any maintenance responsibilities that would be required for the project.

3.25 CLEANING AND PROTECTION

- A. During landscape work, store materials and equipment where directed.
- B. Keep pavements clean and work areas in an orderly condition.
- C. Promptly remove soil and debris created by turf work from paved areas. Clean wheels of vehicles before leaving site to avoid tracking soil onto roads, walks, or other paved areas. At the time of the final inspection of the work and before the issuance of Final Acceptance, all paved areas shall be thoroughly cleaned by the Contractor by sweeping, and washing. All construction equipment and excess materials shall have been removed and any debris or rubbish shall have been removed
- D. Protect landscape work from loss, damage, and deterioration during storage, installation, and maintenance periods.
- E. Remove surplus soil and waste material, including excess subsoil, unsuitable soil, trash, and debris, and legally dispose of them off Owner's property.
- F. Erect temporary fencing or barricades and warning signs as required to protect newly planted areas from traffic. Maintain fencing and barricades throughout initial maintenance period and remove after plantings are established.
- G. Protect from unauthorized persons (trespassers), as well as from operations by other Contractors and tradesmen and landscape operations.

END OF SECTION 02920

H. Remove non-degradable erosion-control measures after grass establishment period.







STUDIO GC

DesignPerspectives

1167 Hobson Mill Drive Naperville, Illinois 60540 Telephone: (630) 606-0776 www.design-perspectives.net

(312) 253-3400

Wilmington Fire Protection Dis



LANDSCAPE

SPECIFICATIONS

25% Review Set • 10.16.2023

60% Review Set • 10.30.2023

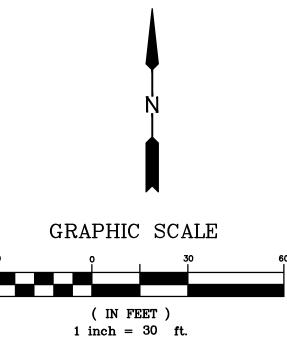
DATE

<u>LP1.0</u>

BENCHMARKS

BENCHMARK #1
NUMBER BOLT ON FIRE HYDRANT AT THE
NORTHWEST CORNER OF THE INTERSECTION
OF JACKSON AND KANKAKEE STREET,
SOUTHWEST OF SITE
ELEVATION=550.38

BENCHMARK #2
NUMBER BOLT OF FIRE HYDRANT AT THE
NORTHEAST CORNER OF THE INTERSECTION
OF VAN BUREN STREET AND JOLIET
STREET, NORTHEAST OF SITE.
ELEVATION=551.24



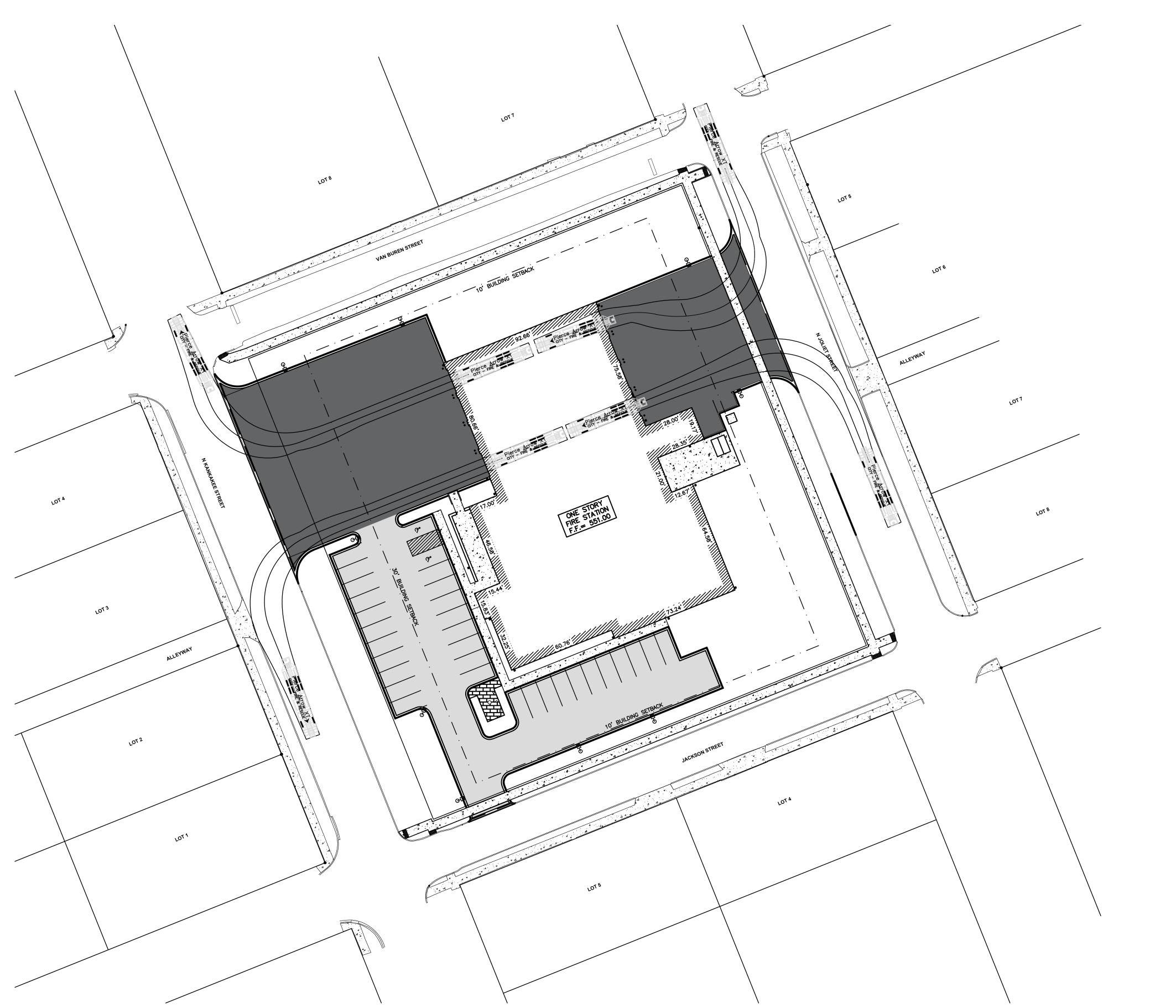




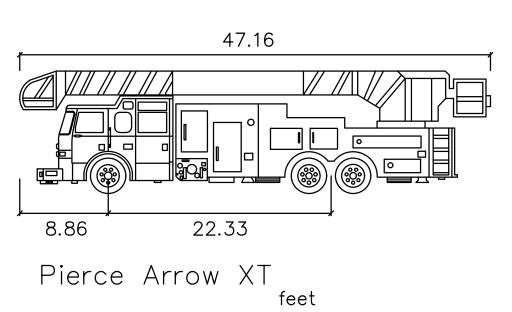


223 West Jackson Boulevard, Suite 1200 Chicago, Illinois 60606 (312) 253-3400

TURNING RADIUS EXHIBIT



HATCH LEGEND PROPOSED LIGHT DUTY PAVEMENT PROPOSED HEAVY DUTY PAVEMENT PROPOSED CONCRETE SIDEWALK PROPOSED BRICK WALKWAY



Width Track Lock to Lock Time Steering Angle



THESE PLANS ARE PREPARED FOR THE CONDITIONAL USE APPLICATION AND ARE PRELIMINARY IN NATURE. FINAL ENGINEERING PLANS WILL BE PREPARED UPON APPROVAL OF THE CONDITIONAL USE.