

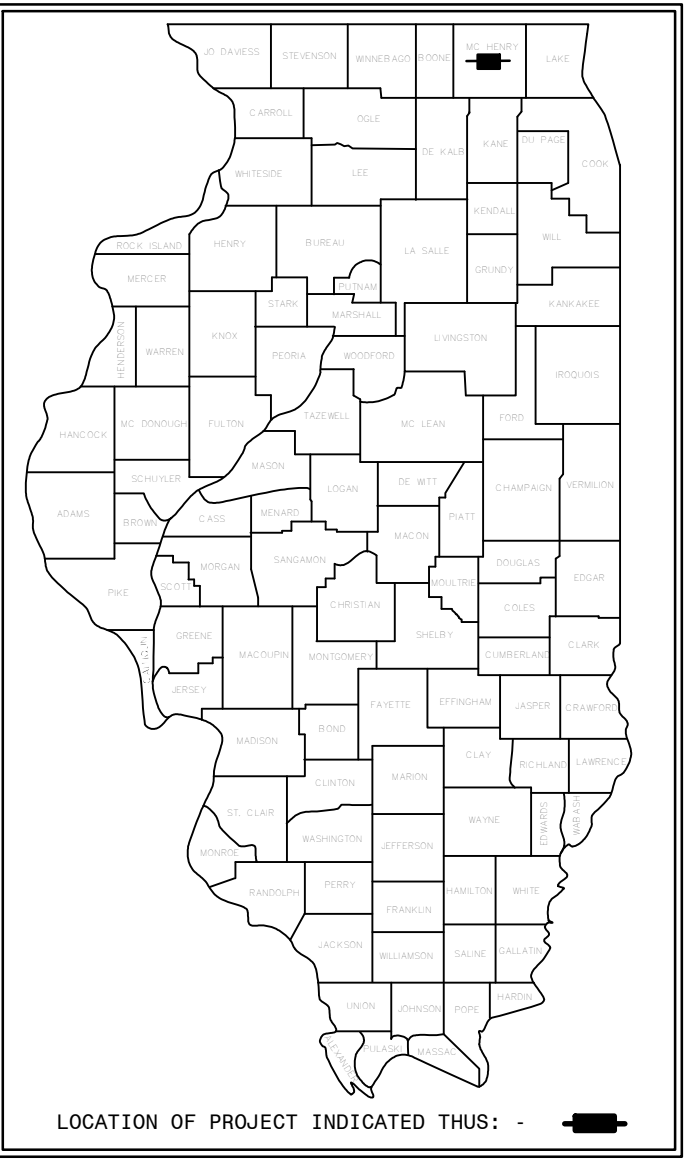
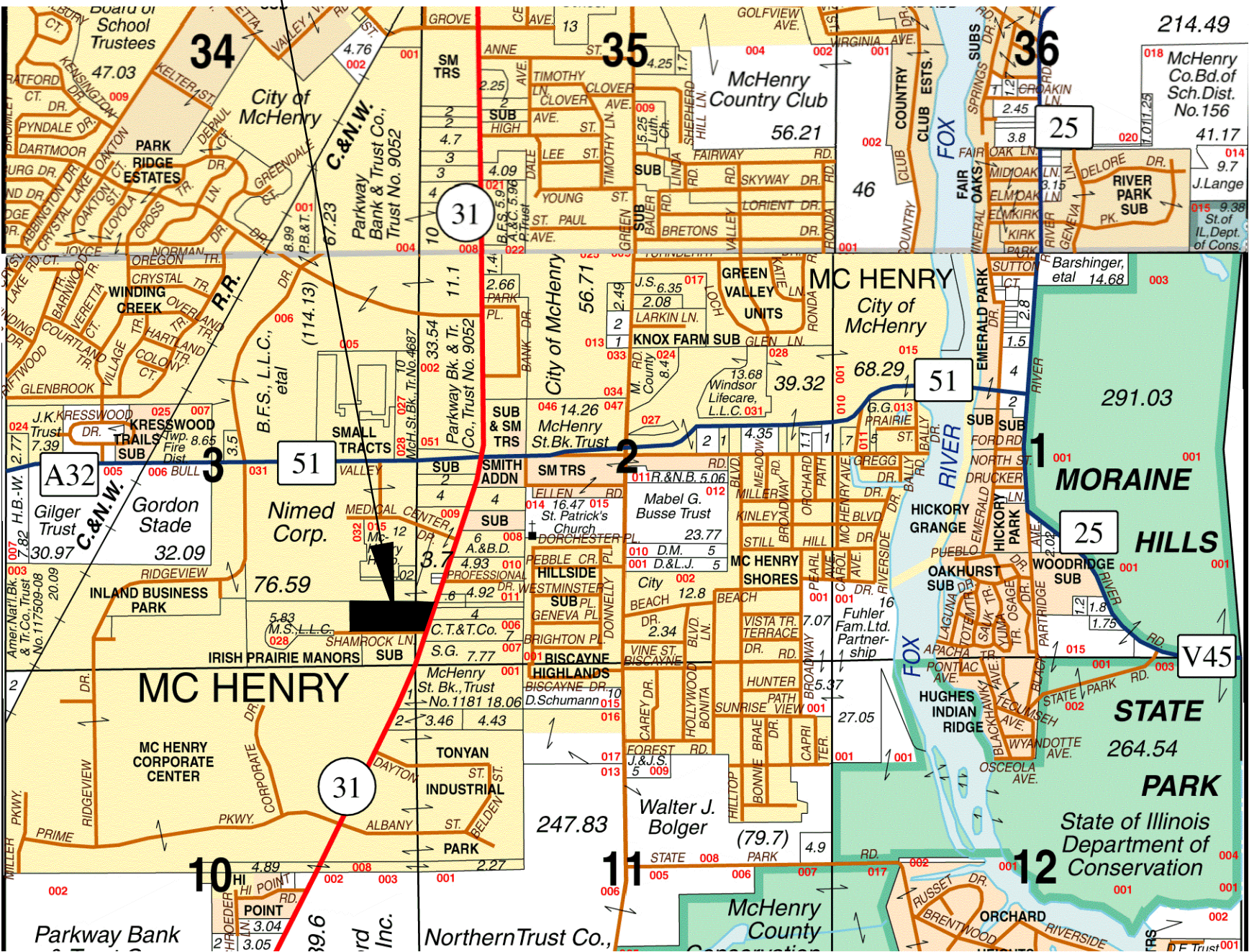
# McHENRY COUNTY COLLEGE SHAH CENTER PARKING LOT RESURFACING PROJECT

McHENRY, ILLINOIS  
2015



## LOCATION MAP

PROJECT LOCATION  
SW1/4 OF SEC. 3-T.44N.-R.8E.



### OWNER:

McHENRY COUNTY COLLEGE  
8900 U.S. HIGHWAY 14  
CRYSTAL LAKE, ILLINOIS 60012  
PHONE: (815) 455-8564  
DIRECTOR OF PHYSICAL FACILITIES  
MR. GREG EVANS

### ENGINEER / SURVEYOR:

HR GREEN, INC.  
420 NORTH FRONT STREET, SUITE 100  
McHENRY IL. 60050  
PHONE: (815) 385-1778  
JOSEPH F. VAVRINA, P.E. - PROJECT MANAGER  
DOUG STALKER - PROJECT SURVEYOR

### SITE BENCHMARKS:

DATUM: NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88)

#### SITE BENCHMARK (SBM#1)

SOUTHEAST TAG BOLT ON FIRE HYDRANT ACROSS THE STREET FROM THE WESTERLY MOST ACCESS POINT TO SHAMROCK LANE.  
ELEV. = 827.17 (NAVD88)

#### SITE BENCHMARK (SBM#2)

SOUTHEAST TAG BOLT ON FIRE HYDRANT ACROSS THE STREET FROM THE MAIN ACCESS POINT TO SHAMROCK LANE.  
ELEV. = 830.57 (NAVD88)

### NOTE:

- HR GREEN, INC. IS TO BE NOTIFIED 3 DAYS PRIOR TO CONSTRUCTION START.
- HR GREEN, INC. SHALL BE INCLUDED IN ALL PRE-CONSTRUCTION MEETINGS.
- ANY KNOWN DISCREPANCIES ON THIS PLAN SET MUST BE BROUGHT TO THE ATTENTION OF HR GREEN, INC. PRIOR TO THE START OF CONSTRUCTION.

## SHEET INDEX

### CIVIL/SITEWORK

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|------|--|
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### LANDSCAPE PLANS

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| L.01 | TREE PRESERVATION PLAN       |
| L.02 | LAYOUT AND DIMENSIONING PLAN |
| L.03 | LANDSCAPE PLAN               |
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### PHOTOMETRIC PLANS

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|------|--------------------------|
| E001 | SITE PLAN - DEMOLITION   |
| E002 | SITE PLAN - ELECTRICAL   |
| E003 | ELECTRICAL DETAILS       |
| E104 | SITE PLAN - PHOTOMETRICS |



420 N. FRONT STREET, SUITE 100 | McHENRY, IL 60050  
Phone: 815.385.1778 | Toll Free: 800.728.7805 | Fax: 815.385.1781 | HRGreen.com



I hereby certify that this engineering document was prepared by me or under my direct personal supervision and that I am a duly licensed Professional Engineer under the laws of the State of Illinois.

2/12/15  
DATE

JOSEPH F. VAVRINA, P.E.  
License Number: 062-058926  
My license renewal date is November 30, 2015.  
Pages or sheets covered by this seal:  
ALL 6 SHEETS



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SHAH CENTER PARKING LOT  
RESURFACING  
McHENRY, ILLINOIS

CIVIL  
COVER SHEET

SHEET NO.  
C.01



GENERAL NOTES

All construction shall be done in accordance with the latest edition in effect on the date of invitation for bids, of the following:

"Standard Specifications for Road and Bridge Construction", by the Illinois Department of Transportation, hereinafter referred to as the "Standard Specifications";

"Supplemental Specifications and Recurring Special Provisions", by the Illinois Department of Transportation ;

"Illinois Manual on Uniform Traffic Control Devices for Streets & Highways";

"Standard Specifications for Water & Sewer Main Construction in Illinois";

"Supplemental Specifications and Recurring Special Provisions";

City of McHenry Subdivision Control and Development Ordinance;

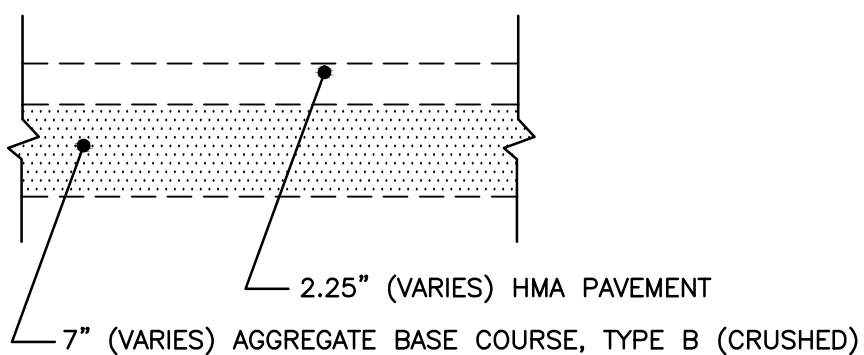
City of McHenry Technical Specifications Manual;

these Plans and the "Special Provisions"\* included in the contract documents.

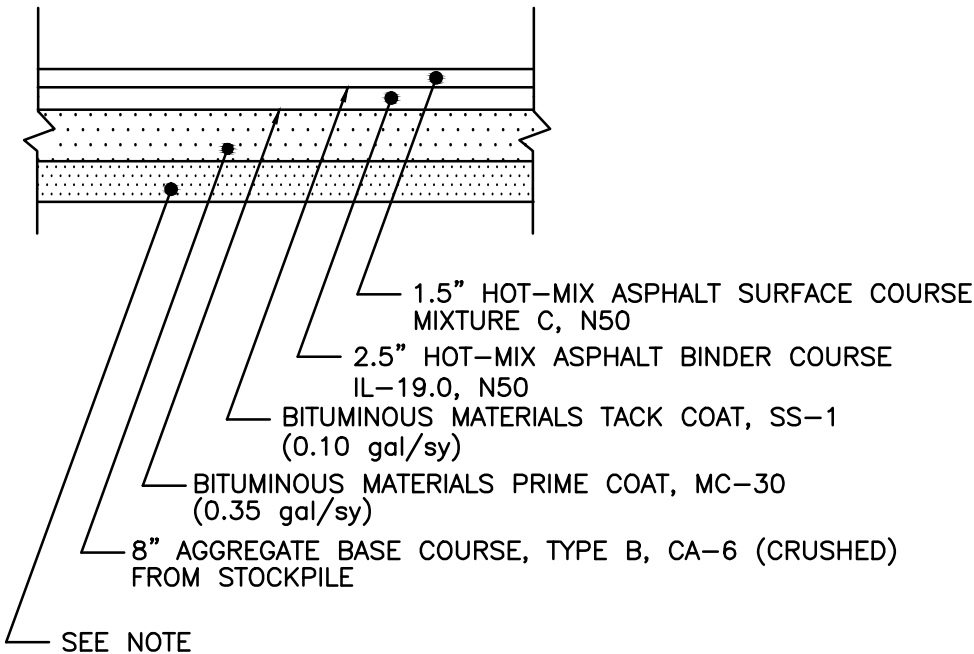
\* These Special Provisions supplement the above specifications, and in case of conflict with any part or parts of said specifications, these special provisions shall take precedence and shall govern.

- Construction Requirements
  - Storm sewers shall be constructed in accordance with the "Standard Specifications for Road and Bridge Construction" Illinois Department of Transportation, Standard Specifications for Water and Sewer Main Construction in Illinois, the pipe manufacturer's recommendations, and these Development Standards. If storm sewer spacing is greater than 300-feet, inlet spacing calculations, per the IDOT Drainage Manual shall be provided.
  - Trenches for storm sewers located under or within two (2) feet of a paved area shall be backfilled with select granular conforming to gradation FA 6 or sand and compacted by mechanical means to ninety-five (95) percent standard laboratory density.
  - Adjusting rings for manholes, catch basins, and inlets shall be limited to a maximum of three (3) rings and maximum height of eight (8) inches.
  - When adjusting rings are required on structures a cement mortar or bituminous material coating shall be applied to the outside of the rings.
  - Lifting holes in structure sections and sewer pipe shall be plugged with appropriate sized concrete lift plugs and coated with bituminous material.

EXISTING PAVEMENT SECTION (VARIES)

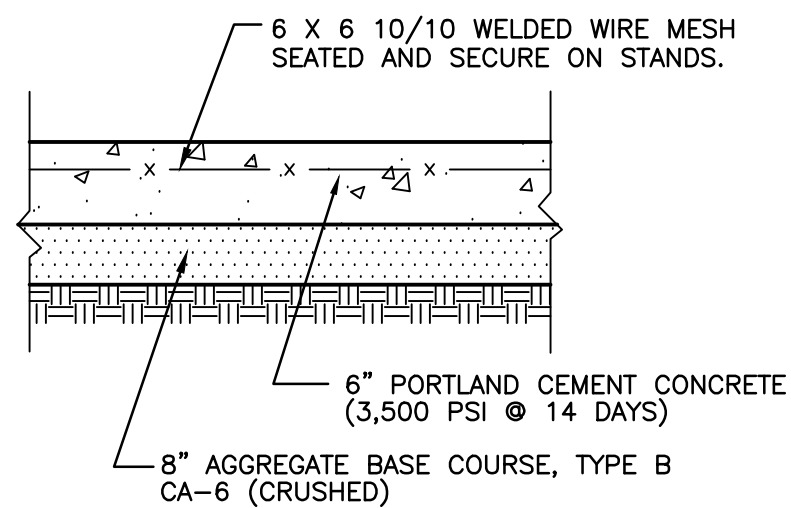


STANDARD PAVEMENT SECTION (ALTERNATE)

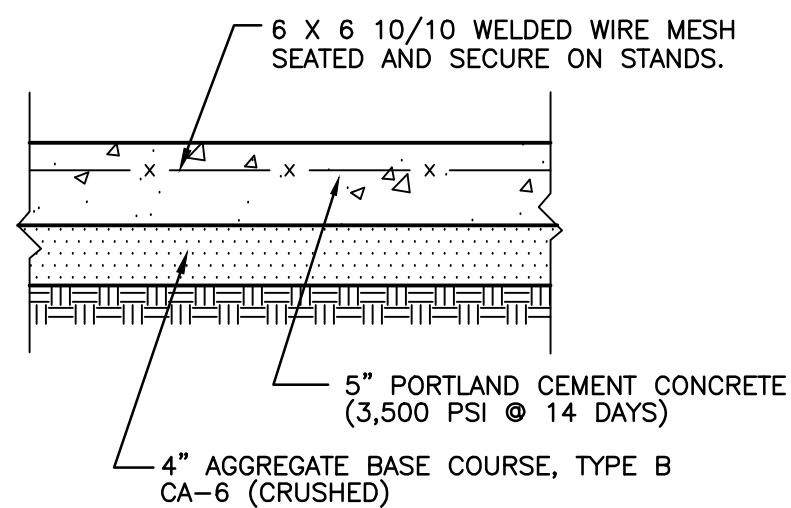


NOTE:  
IF CONTRACTOR ELECTS TO MILL PARKING LOT, GRINDINGS MAY BE SUBSTITUTED FOR CA-6 IMPROVED AGGREGATE BASE, ALLOWABLE GRINDING DEPTH OF 4" (MIN.) IS PERMITTED

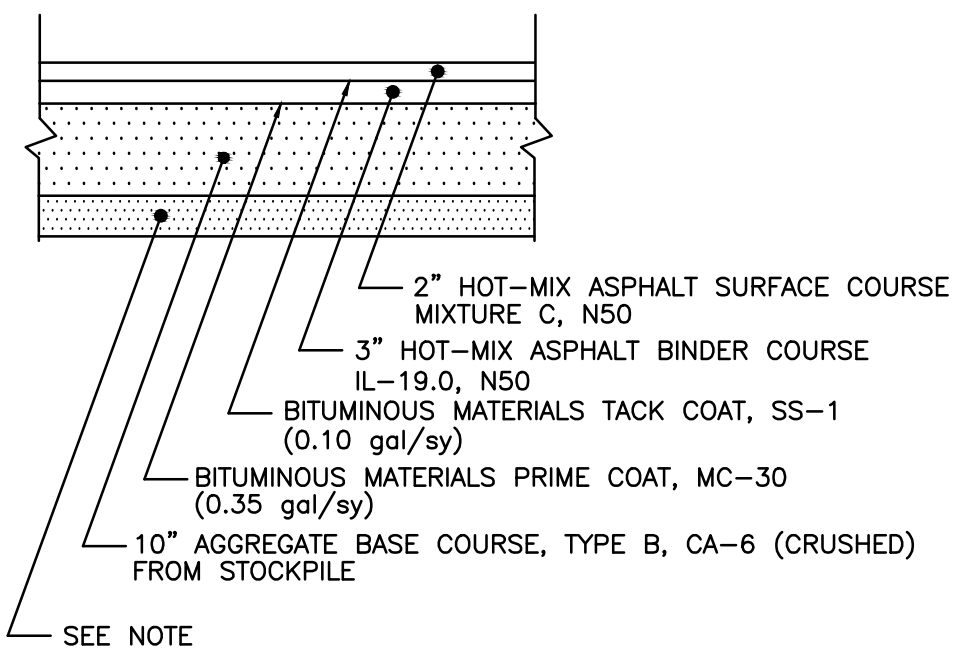
CONCRETE TRASH ENCLOSURE SECTION



SIDEWALK SECTION



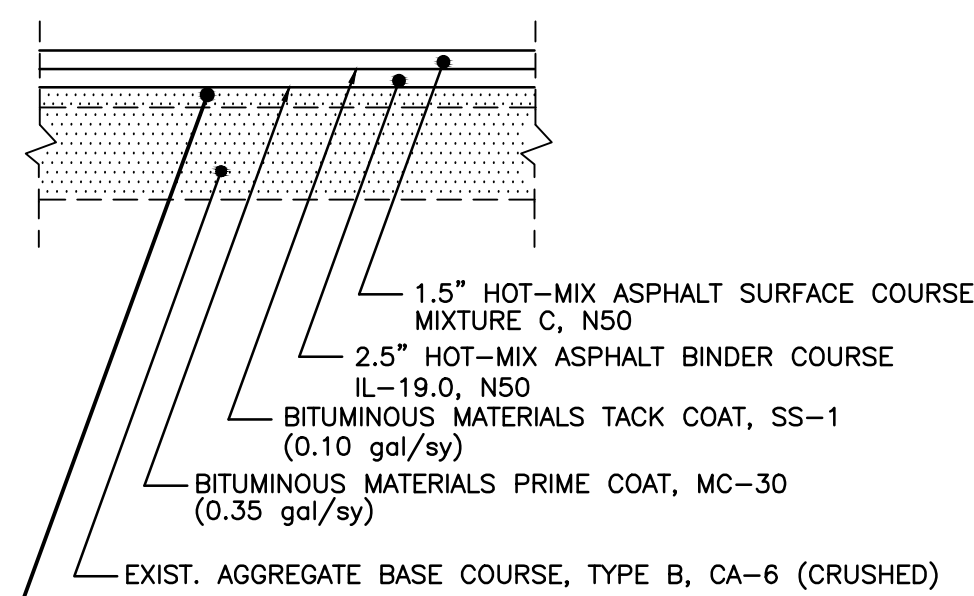
HEAVY DUTY PAVEMENT SECTION



NOTE:  
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HEAVY DUTY PAVEMENT AREAS ARE  
SHADED ON PLANS

STANDARD PAVEMENT SECTION



CONTRACTOR TO TOP DRESS EXISTING BASE AS  
NEEDED TO MEET PROPOSED GRADE

SYMBOL LEGEND

	EXISTING	PROPOSED
SANITARY MANHOLE	⊙	⊙
STORM MANHOLE	⊙	⊙
STORM CATCH BASIN/INLET	○	●
INLET	□	■
FLARED END SECTION	▷	▷
VALVE VAULT	⊙	⊙
WATER SERVICE VALVE	⋈	⋈
FIRE HYDRANT WITH AUXILIARY VALVE	⋈	⋈
LIGHT POLE	✱	✱
STREET SIGN	+	+
REGULATORY SIGN	+	+
UTILITY POLE	⋈	⋈
UTILITY BOX	⊙	⊙
MAILBOX	⊙	⊙
WELL	⊙	⊙
SANITARY SEWER	—	—
STORM SEWER	—	—
STORM SEWER (WATER QUALITY PIPE)	—	—
CULVERT	-----	-----
WATER MAIN	—	—
WATER MAIN ENCASEMENT	—	—
SANITARY FORCE MAIN	—	—
STORM UNDERDRAIN	—	—
ELECTRIC LINE	—	—
TELEPHONE LINE	—	—
GAS LINE	—	—
CABLE TV LINE	—	—
TREE LINE	—	—
TREE	⊙	⊙
CONTOURS	—	—
SPOT ELEVATION	EXIST	PROP
FENCE	—	—
MARSH / WETLAND	—	—
STONE RIP RAP	—	—
EROSION CONTROL FENCE (QUANTITY SPECIFIED PER PLANS)	—	—
DRAINAGE DIRECTION ARROW	—	—
10-100 YEAR OVERFLOW DIRECTION ARROW	—	—

STANDARD ABBREVIATIONS

B-B - BACK TO BACK OF CURB  
B.O.C. - BACK OF CURB  
B.S.L. - BUILDING SETBACK LINE  
B.W. - BOTTOM OF WALL  
CATV. - CABLE TELEVISION  
C.B. - STORM CATCH BASIN  
C.E. - COMMONWEALTH EDISON CO.  
D.E. - DRAINAGE EASEMENT  
E-E - EDGE TO EDGE OF PAVEMENT  
ELEC. - ELECTRICAL  
E.O.P. - EDGE OF PAVEMENT  
E.O.S. - EDGE OF SHOULDER  
F.E.S. - FLARED END SECTION  
L.E. - LANDSCAPE EASEMENT  
M.H. - MANHOLE (TYPE SPECIFIED ON PLANS)  
P.A.E. - PEDESTRIAN ACCESS EASEMENT  
R.C.M.E. - ROAD CONSTRUCTION & MAINTENANCE EASEMENT  
R.O.W. - RIGHT OF WAY  
T.B.F. - TRENCH BACKFILL  
T.C. - TOP OF CURB  
T.C.E. - TEMPORARY CONSTRUCTION EASEMENT  
TEL - TELEPHONE CO.  
T.W. - TOP OF WALL  
U.E. - UTILITY EASEMENT

TAG EXPLANATION LEGEND:

EXAMPLE 1 (SANITARY & STORM MANHOLES):  
SAN MH 4 DIA TIF CL =  
PROPOSED SANITARY MANHOLE, 4' DIAMETER, TYPE 1 FRAME, CLOSED LID

EXAMPLE 2 (STORM SEWER, SANITARY SEWER, WATER MAIN):  
120 LIN FT SAN SEWER 6 =  
PROPOSED 120 LINEAL FEET SANITARY SEWER 6"

EXAMPLE 3 (STORM CATCH BASINS):  
CB TA T11 F&G =  
PROPOSED CATCH BASIN, TYPE A, TYPE 11 FRAME & GRATE

EXAMPLE 4 (STORM FLARED END SECTIONS):  
PRC CONC FLAR END SEC 15 =  
PROPOSED PRC CONCRETE FLARED END SECTION 15"

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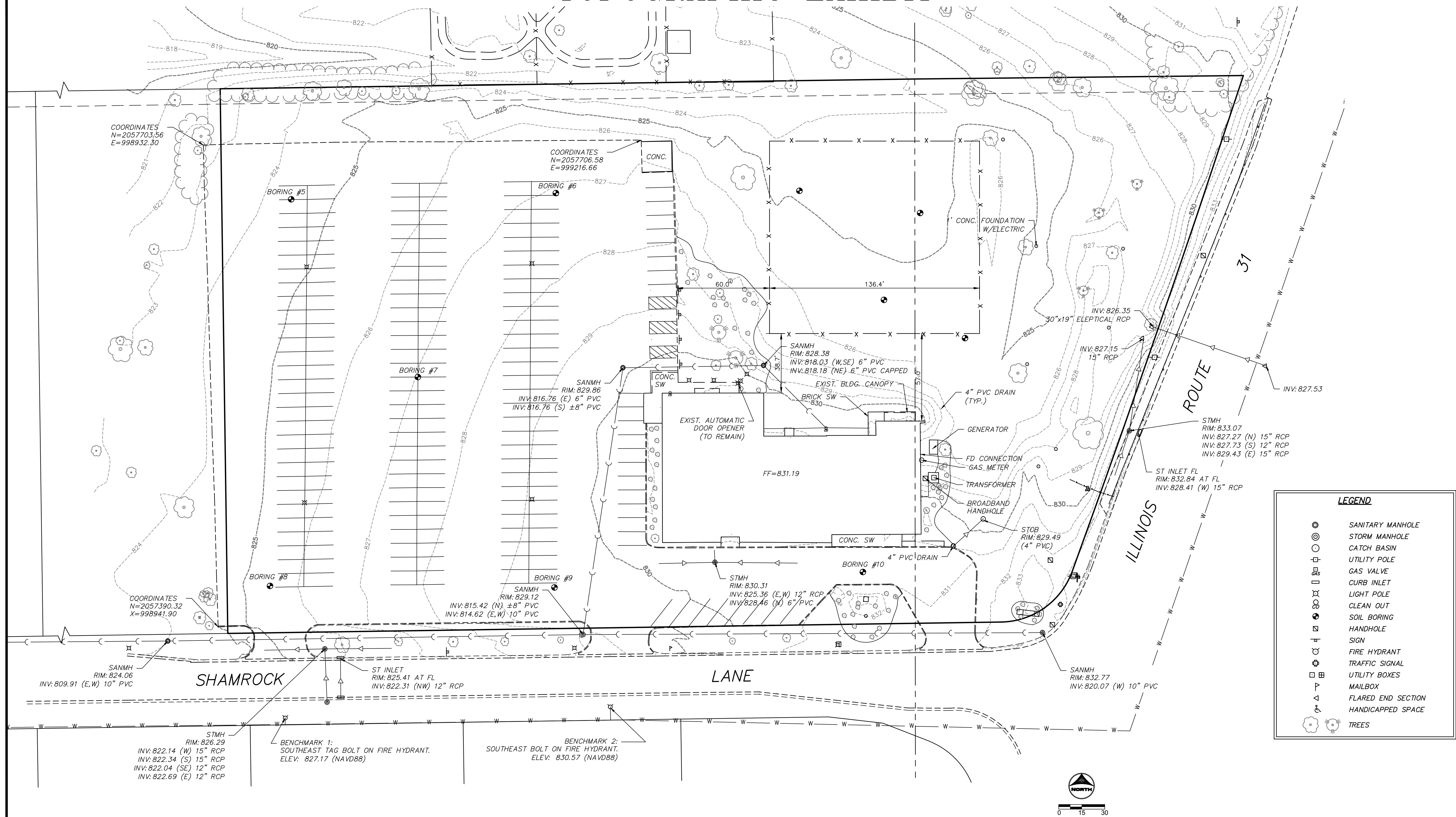
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RESURFACING  
McHENRY, ILLINOIS

CIVIL  
GENERAL NOTES, TYPICAL SECTIONS AND  
LEGEND

SHEET NO.  
C.02



# TOPOGRAPHIC EXHIBIT



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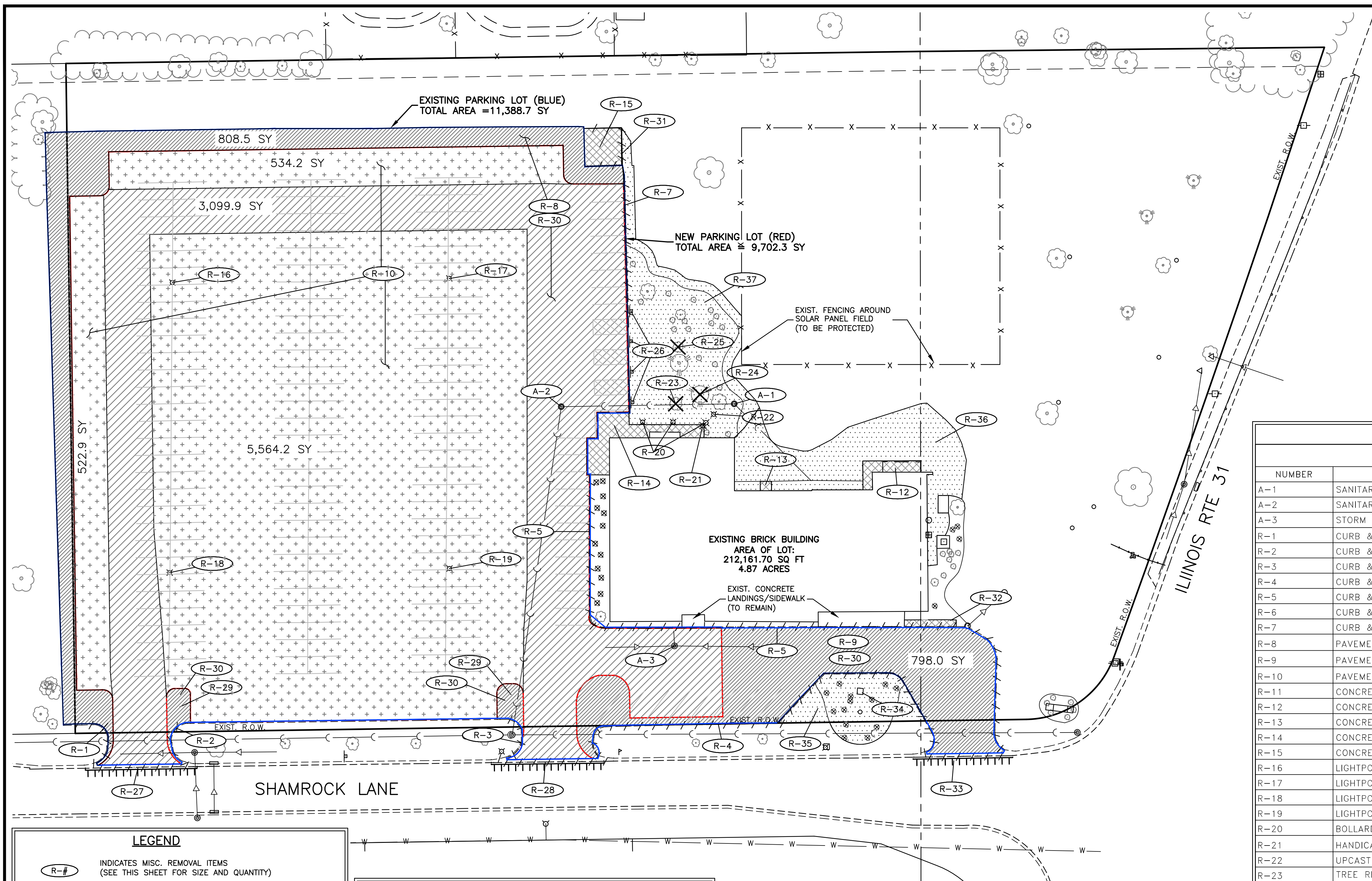
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CIVIL  
EXISTING CONDITIONS PLAN

SHEET NO.  
C.03

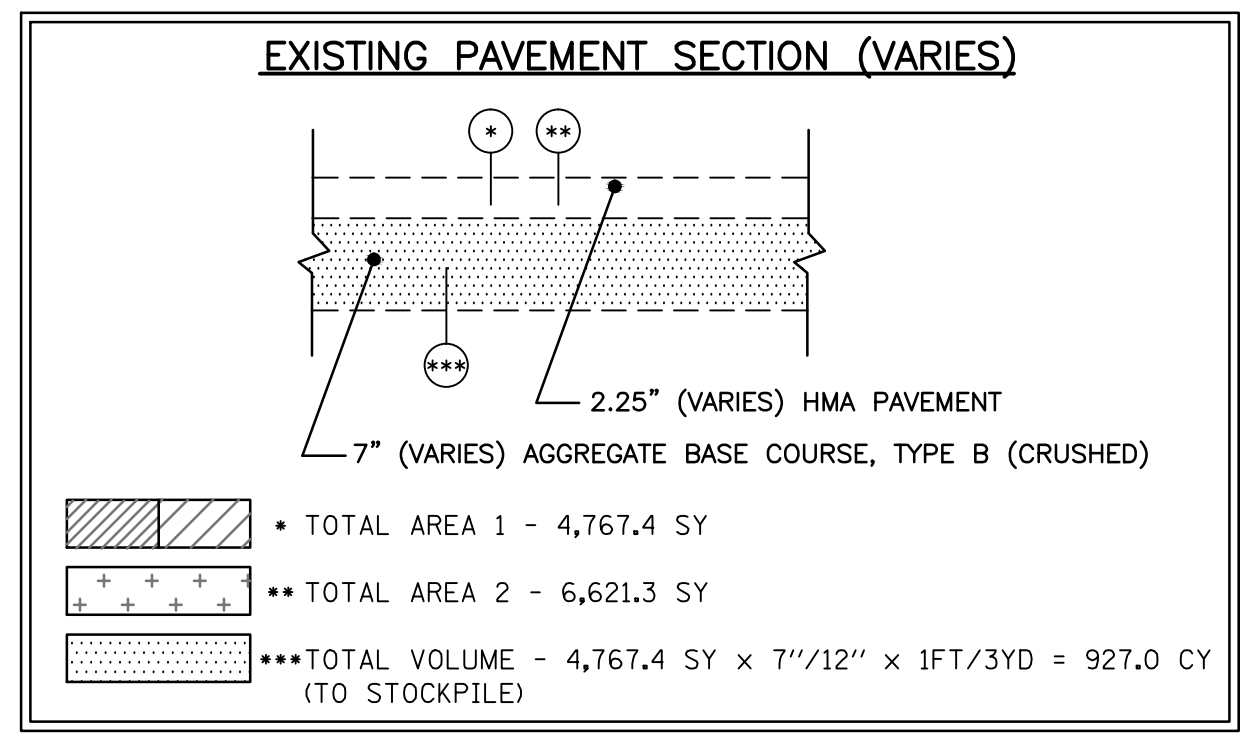




- PROJECT NOTES:**
- \* NO LAND DISTURBING ACTIVITIES SHALL COMMENCE UNTIL APPROVAL TO DO SO HAS BEEN RECEIVED BY GOVERNING AUTHORITIES. IN ADDITION, NO LAND CLEARING OR GRADING SHALL BEGIN UNTIL ALL PERIMETER EROSION AND SEDIMENT CONTROL MEASURES HAVE BEEN INSTALLED. (INCLUDING STORM WATER POLLUTION PREVENTION PLAN PER THE DEVELOPMENT CRITERIA.) SEE SHEET C.07 FOR EROSION CONTROL MEASURES)
  - \* ALL EXISTING UTILITIES TO BE FIELD VERIFIED PRIOR TO CONSTRUCTION.
  - \* CONTRACTOR SHALL COORDINATE AND COMPLY WITH ALL UTILITY COMPANIES INVOLVED IN PROJECT AND PAY ALL REQUIRED FEES AND COSTS.
  - \* ALL STRUCTURES & DEBRIS SHALL BE REMOVED PRIOR TO CONSTRUCTION & DISPOSED OF OFFSITE.
  - \* ANY EXISTING FIELD DRAIN TILES ENCOUNTERED SHALL BE RECONNECTED OR CONNECTED TO THE NEAREST STORM SEWER.
  - \* ALL TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
  - \* CONTRACTOR TO KEEP PUBLIC RIGHT-OF-WAYS OPEN AND CLEAN AT ALL TIMES WITH MINOR CLOSINGS ALLOWED FOR PAVING AND UTILITY INSTALLATION ACTIVITIES.
  - \* THE CONTRACTOR IS CAUTIONED NEITHER TO OBSTRUCT NOR REMOVE ANY EXISTING PAVEMENT, NOR TO DISTURB THE EXISTING TRAFFIC PATTERNS MORE THAN IS NECESSARY FOR THE PROPER EXECUTION OF THE WORK.
  - \* SAWCUT SHALL BE 1 FOOT OFF THE EDGE OF PAVEMENT.
  - \* CONTRACTOR TO MAINTAIN ACCESS TO MAIN ENTRY OF BUILDING AT ALL TIMES.

R-# REMOVALS TAGS			
REMOVALS / RELOCATES / ADJUSTMENTS			
NUMBER	DESCRIPTION	UNIT	REMARKS
A-1	SANITARY MANHOLE	1 EA	ADJUST TO PROP. GRADE = 829.91
A-2	SANITARY MANHOLE	1 EA	ADJUST TO PROP. GRADE = 829.86
A-3	STORM MANHOLE	1 EA	ADJUST TO PROP. GRADE = 830.37
R-1	CURB & GUTTER	44 LIN. FT.	REMOVE
R-2	CURB & GUTTER	29 LIN. FT.	REMOVE
R-3	CURB & GUTTER	34 LIN. FT.	REMOVE
R-4	CURB & GUTTER	236 LIN. FT.	REMOVE
R-5	CURB & GUTTER	204 LIN. FT.	REMOVE
R-6	CURB & GUTTER	127 LIN. FT.	REMOVE
R-7	CURB & GUTTER	81 LIN. FT.	REMOVE
R-8	PAVEMENT	3,908.4 S.Y.	REMOVE (FULL DEPTH)
R-9	PAVEMENT	798 S.Y.	REMOVE (FULL DEPTH)
R-10	PAVEMENT	6,621.3 S.Y.	REMOVE (FULL DEPTH)
R-11	CONCRETE	98 S.F.	REMOVE
R-12	CONCRETE	110 S.F.	REMOVE
R-13	CONCRETE	30 S.F.	REMOVE
R-14	CONCRETE	690 S.F.	REMOVE
R-15	CONCRETE	381 S.F.	REMOVE
R-16	LIGHTPOLE	1 EA	REMOVE
R-17	LIGHTPOLE	1 EA	REMOVE
R-18	LIGHTPOLE	1 EA	REMOVE
R-19	LIGHTPOLE	1 EA	REMOVE
R-20	BOLLARD LIGHT	3 EA	REMOVE
R-21	HANDICAP DOOR BUTTON BOLLARD	1 EA	PROTECT / RESTORE
R-22	UPCAST LIGHTPOLE	1 EA	REMOVE
R-23	TREE REMOVAL, 10"	1 EA	REMOVE
R-24	TREE REMOVAL, 18"	1 EA	REMOVE
R-25	TREE REMOVAL, 8"	1 EA	REMOVE
R-26	HANDICAP PARKING SIGN	4 EA	REMOVE
R-27	SAWCUT	59 LIN. FT.	REMOVE
R-28	SAWCUT	60 LIN. FT.	REMOVE
R-29	PAVEMENT	61 S.Y.	REMOVE (FULL DEPTH)
R-30	SELECT STONE BASE (7")	927.0 C.Y.	REMOVE & STOCKPILE
R-31	FENCE	59 LIN. FT.	REMOVE
R-32	CONCRETE	1,046 S.F.	REMOVE
R-33	CURB & GUTTER	53 LIN. FT.	REMOVE
R-34	FLAG POLE BASE	1 EA	REMOVE
R-35	CLEAR & GRUB	201 S.Y.	REMOVE
R-36	CLEAR & GRUB	310 S.Y.	REMOVE
R-37	CLEAR & GRUB	589 S.Y.	REMOVE

- LEGEND**
- R-# INDICATES MISC. REMOVAL ITEMS (SEE THIS SHEET FOR SIZE AND QUANTITY)
  - INDICATES PAVEMENT REMOVAL (FULL DEPTH) ALSO INCLUDES SELECT AGGREGATE REMOVAL (STOCKPILE) (AREA TO BE TOPSOIL AND LANDSCAPED)
  - INDICATES PAVEMENT REMOVAL (FULL DEPTH) ALSO INCLUDES SELECT AGGREGATE REMOVAL (STOCKPILE) (AREA TO BE PAVED WITH HD PAVEMENT SECTION)
  - INDICATES PAVEMENT MILLING (FULL DEPTH) (AREA AGGREGATE BASE SHALL BE LEFT IN PLACE)
  - INDICATES CONCRETE REMOVAL (FULL DEPTH)
  - DENOTES EXIST. CONCRETE CURB & GUTTER OR BARRIER CURB TO BE REMOVED
  - INDICATES CLEAR AND GRUB TOPSOIL STRIP (TO STOCKPILE)
  - INDICATES TREE AND BRUSH REMOVAL (SEE SHEET L.01 FOR TREE AND SHRUB REMOVALS)
  - ||||| FULL DEPTH SAWCUT



- STAGING NOTE:**  
(STAGING SUBJECT TO CHANGES PER SITE CONTRACTORS SCHEDULE AND METHODS OF OPERATION)
1. EROSION CONTROL MEASURES AND STOCKPILE STAGING
  2. CONSTRUCTION ENTRANCE
  3. PLAN REMOVALS
  4. MASS GRADING
  5. PROPOSED UNDERGROUND UTILITY CONSTRUCTION
  6. GRADING
  7. PAVING
  8. FINE GRADING/STOCKPILE RESPREAD



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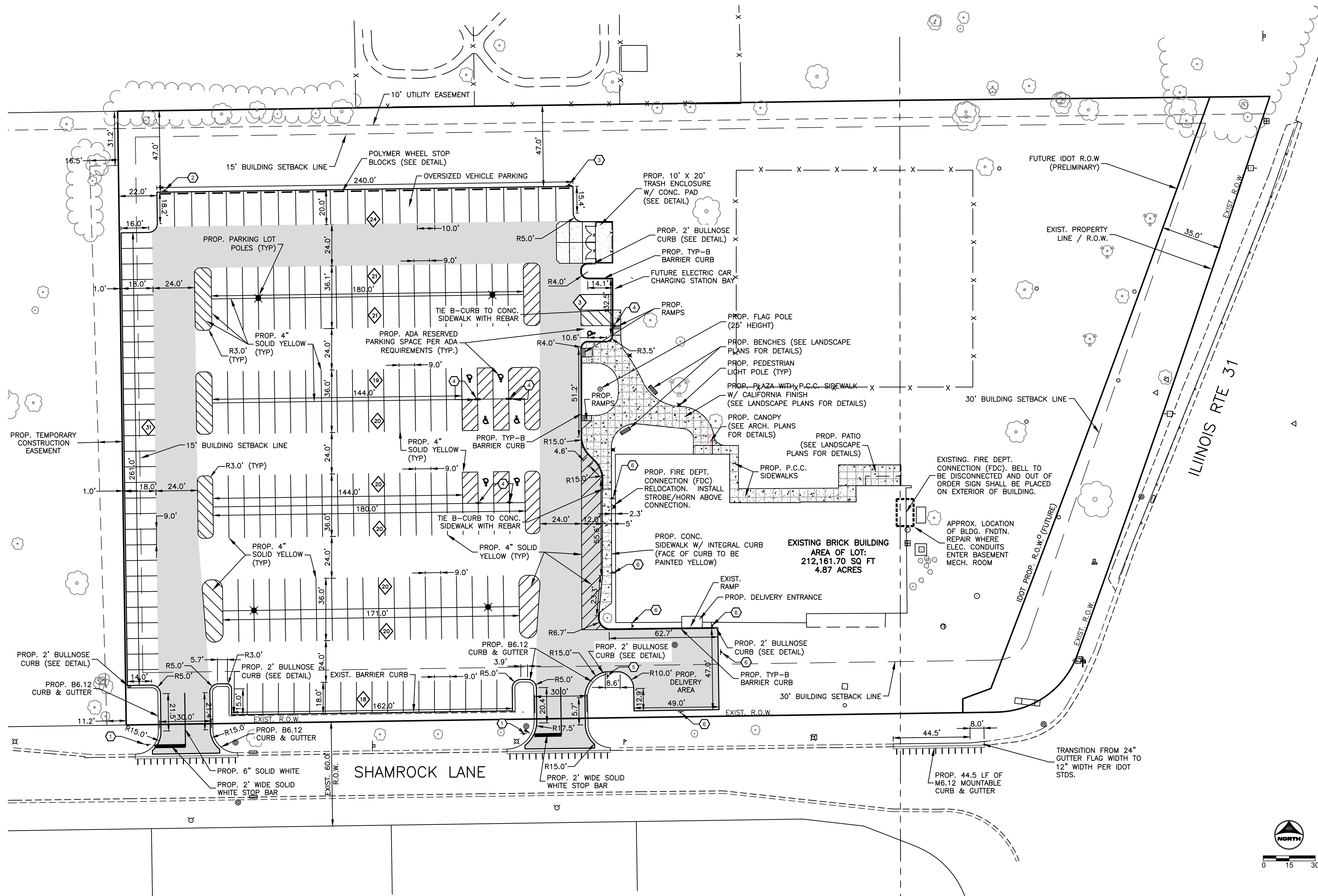


**SHAH CENTER PARKING LOT RESURFACING**  
McHENRY, ILLINOIS

CIVIL  
**SITE DEMOLITION PLAN**

SHEET NO.  
**C.04**





### SITE DATA:

- \* PROJECT AREA = 75,261± SQ. FT. (1.727 AC.)

### PARKING DATA:

- EXISTING:
- \* NUMBER OF STANDARD STALLS: 202
  - \* NUMBER OF HANDICAP PARKING STALLS: 3
  - \* TOTAL NUMBER OF STALLS: 205
- PROPOSED:
- \* NUMBER OF STANDARD STALLS: 234
  - \* NUMBER OF HANDICAP PARKING STALLS: 7
  - \* TOTAL NUMBER OF STALLS PROVIDED: 241
  - \* MINIMUM PARKING WIDTH: 9'
  - \* MINIMUM PARKING LENGTH: 18'
  - \* MINIMUM AISLE WIDTH: 24'

### SIGN LEGEND:

- 1 DENOTES "STOP" R1-1, 30" X 30"
- 2 DENOTES "OVERSIZED VEHICLE PARKING" 18" X 24"
- 3 DENOTES "OVERSIZED VEHICLE PARKING" 18" X 24"
- 4 DENOTES "HANDICAP PARKING" R7-8, 18" X 24" (TYP) DENOTES "\$250 FINE" R7-1101 6" X 12" (TYP)
- 5 DENOTES "DELIVERY AREA" 18" X 24"
- 6 DENOTES "NO PARKING FIRE LANE" 18" X 24"

### HATCH LEGEND

- DENOTES NEW STANDARD PAVEMENT SECTION
- DENOTES NEW HEAVY DUTY PAVEMENT SECTION
- DENOTES CONCRETE SECTION
- DENOTES REVERSE CURB & GUTTER
- DENOTES CONCRETE CURB & GUTTER
- DENOTES DEPRESSED CURB AND GUTTER.
- DENOTES PROP. SIDEWALK
- DENOTES AREA OF DEPRESSED SIDEWALK
- DENOTES AREA TO UTILIZE TRUNCATED DOMES

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**SHAH CENTER PARKING LOT  
 RESURFACING**  
 McHENRY, ILLINOIS

CIVIL  
**SITE PLAN**

SHEET NO.  
**C.05**

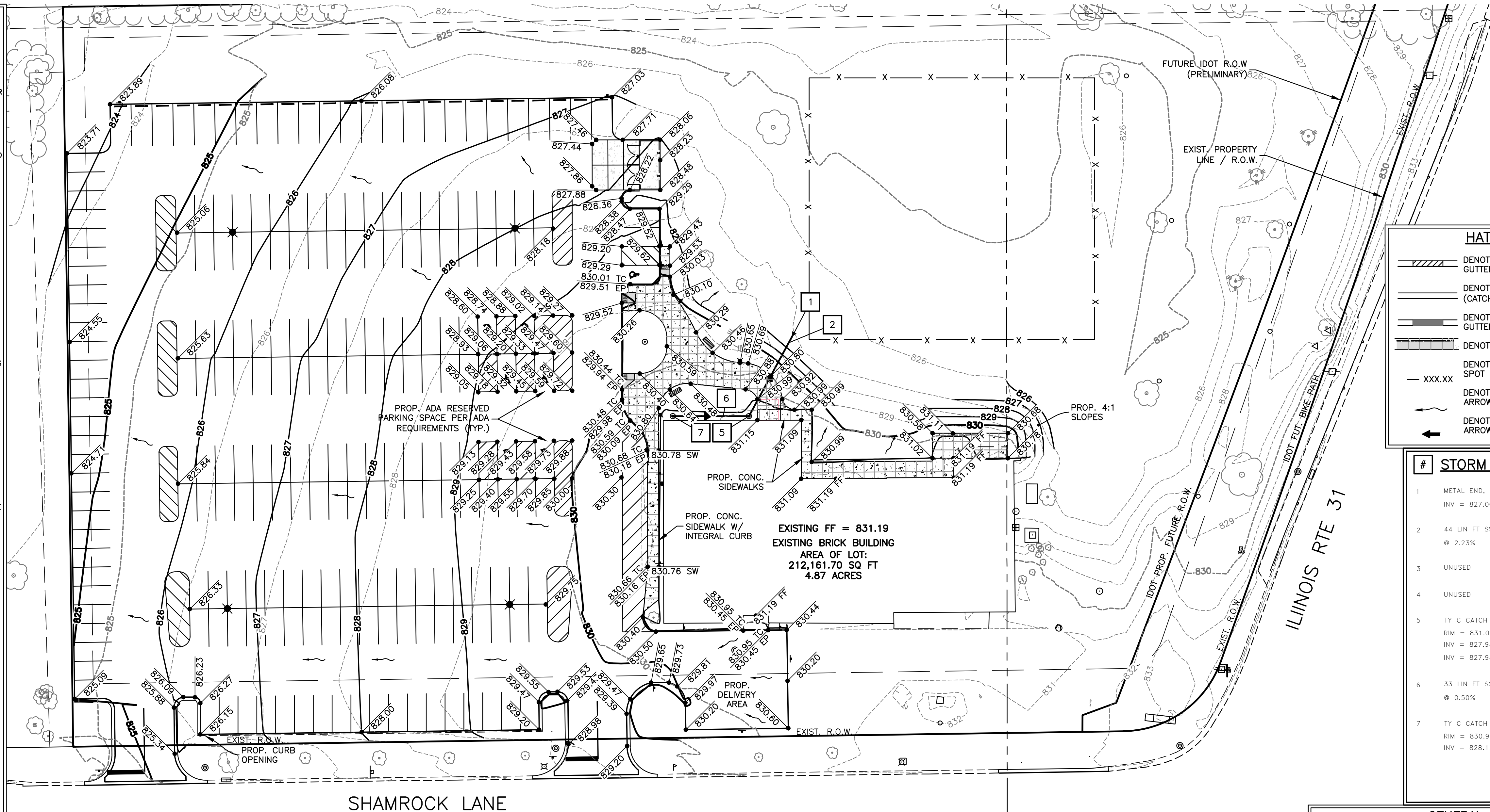
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**811**  
 Know what's below.  
 Call before you dig.



# GRADING & DRAINAGE NOTES

- CONTRACTOR IS RESPONSIBLE FOR COORDINATION OF SITE, PLAN DOCUMENTS AND ARCHITECTURAL DESIGN FOR EXACT BUILDING UTILITY CONNECTION LOCATIONS, GREASE TRAP REQUIREMENTS/DETAILS, DOOR ACCESS, AND EXTERIOR GRADING. THE UTILITY SERVICE SIZES ARE TO BE DETERMINED BY THE ARCHITECT. THE CONTRACTOR SHALL COORDINATE INSTALLATION OF UTILITIES/SERVICES WITH THE INDIVIDUAL COMPANIES, TO AVOID CONFLICTS AND ENSURE PROPER DEPTHS ARE ACHIEVED. THE JURISDICTION UTILITY REQUIREMENTS SHALL ALSO BE MET, AS WELL AS COORDINATING THE UTILITY TIE-INS/CONNECTIONS PRIOR TO THE EXISTING UTILITY/SERVICE. WHERE CONFLICTS EXIST WITH THESE SITE PLANS, ENGINEER IS TO BE NOTIFIED PRIOR TO CONSTRUCTION TO RESOLVE SAME.
- SITE GRADING SHALL BE PERFORMED IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING AND REPLACING WITH SUITABLE MATERIALS AS SPECIFIED IN THE SPECIFICATIONS. ALL EXCAVATED OR FILLED AREAS SHALL BE COMPACTED AS OUTLINED IN THE SPECIFICATIONS. MOISTURE CONTENT AT TIME OF PLACEMENT SHALL BE SUBMITTED IN COMPACTION REPORT PREPARED BY A QUALIFIED GEOTECHNICAL ENGINEER, REGISTERED WITH THE STATE WHERE THE WORK IS PERFORMED, VERIFYING THAT ALL FILLED AREAS AND SUBGRADE AREAS WITHIN THE BUILDING PAD AREA AND AREAS TO BE PAVED HAVE BEEN COMPACTED IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS AND THE RECOMMENDATIONS SET FORTH IN THE SPECIFICATIONS. SUBBASE MATERIAL FOR SIDEWALKS, CURB, OR ASPHALT SHALL BE FREE OF ORGANICS AND OTHER UNSUITABLE MATERIALS. SHOULD SUBBASE BE DEEMED UNSUITABLE BY OWNER OR OWNER'S REPRESENTATIVE, SUBBASE IS TO BE REMOVED AND FILLED WITH APPROVED FILL MATERIAL COMPACTED AS DIRECTED BY THE SPECIFICATIONS.
- ALL FILL, COMPACTION, AND BACKFILL MATERIALS REQUIRED FOR UTILITY INSTALLATION SHALL BE AS PER THE RECOMMENDATIONS PROVIDED IN THE SPECIFICATIONS AND SHALL BE COORDINATED WITH THE APPLICABLE UTILITY COMPANY SPECIFICATIONS.
- THE CONTRACTOR SHALL COMPLY TO THE FULLEST EXTENT WITH THE LATEST OSHA STANDARDS AND REGULATIONS, OR ANY OTHER AGENCY HAVING JURISDICTION FOR EXCAVATION AND TRENCHING PROCEDURES. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING "MEANS AND METHODS" REQUIRED TO MEET THE INTENT AND PERFORMANCE CRITERIA OF OSHA, AS WELL AS ANY OTHER ENTITY THAT HAS JURISDICTION FOR EXCAVATION AND/OR TRENCHING PROCEDURES.
- PAVEMENT SHALL BE SAW CUT IN STRAIGHT LINES TO THE FULL DEPTH OF THE EXISTING PAVEMENT. ALL DEBRIS FROM REMOVAL OPERATIONS SHALL BE REMOVED FROM THE SITE AT THE TIME OF EXCAVATION. STOCKPILING OF DEBRIS WILL NOT BE PERMITTED.
- THE TOPS OF EXISTING MANHOLES, INLET STRUCTURES, AND SANITARY CLEANOUT TOPS SHALL BE ADJUSTED, IF REQUIRED, TO MATCH PROPOSED GRADES IN ACCORDANCE WITH ALL APPLICABLE STANDARDS.
- THE CONTRACTOR IS RESPONSIBLE FOR VERIFICATION OF EXISTING TOPOGRAPHIC INFORMATION AND UTILITY INVERT ELEVATIONS PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION. CONTRACTOR TO ENSURE 0.75% MINIMUM SLOPE ALONG ALL ISLANDS, GUTTERS, AND CURBS; 1.0% ON ALL CONCRETE SURFACES; AND 1.5% MINIMUM ON ASPHALT, TO PREVENT PONDING. ANY DISCREPANCIES THAT MAY AFFECT THE PUBLIC SAFETY OR PROJECT COST MUST BE IDENTIFIED TO THE ENGINEER IN WRITING IMMEDIATELY. PROCEEDING WITH CONSTRUCTION WITHOUT NOTIFICATION IS DONE SO AT THE CONTRACTOR'S OWN RISK.
- PROPOSED TOP OF CURB ELEVATIONS ARE GENERALLY 6" ABOVE EXISTING LOCAL ASPHALT GRADE UNLESS OTHERWISE NOTED. FIELD ADJUST TO CREATE A MINIMUM OF 0.75% GUTTER GRADE ALONG CURB FACE. ENGINEER TO APPROVE FINAL CURBING CUT SHEETS PRIOR TO INSTALLATION.
- IN CASE OF DISCREPANCIES BETWEEN PLANS OR RELATIVE TO OTHER PLANS, THE SITE PLAN WILL TAKE PRECEDENCE. IMMEDIATELY NOTIFY THE ENGINEER IN WRITING OF ANY CONFLICTS.
- CONTRACTOR SHALL BE REQUIRED TO SECURE ALL NECESSARY PERMITS AND APPROVALS FOR ALL OFF-SITE MATERIAL SOURCES AND DISPOSAL FACILITIES. CONTRACTOR SHALL SUPPLY A COPY OF APPROVALS TO ENGINEER AND OWNER PRIOR TO INITIATING WORK.
- SITE GRADING SHALL NOT PROCEED UNTIL EROSION CONTROL MEASURES HAVE BEEN INSTALLED.
- SEE EROSION CONTROL PLAN FOR EROSION CONTROL MEASURES AND NOTES.
- ALL EXISTING STRUCTURES, UNLESS OTHERWISE NOTED TO REMAIN, FENCING, TREES, & ETC., WITHIN CONSTRUCTION AREA SHALL BE REMOVED & DISPOSED OF OFF SITE. NO ON SITE BURNING WILL BE ALLOWED.
- ALL DRAINAGE STRUCTURES SHALL BE PRE-CAST.
- ALL DRAINAGE STRUCTURES AND STORM SEWER PIPES SHALL MEET HEAVY DUTY TRAFFIC (H20) LOADING AND BE INSTALLED ACCORDINGLY.
- GENERAL CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES HAVING UNDERGROUND UTILITIES ON SITE OR IN RIGHT-OF-WAY PRIOR TO EXCAVATING. CONTRACTOR SHALL CONTACT UTILITY LOCATING COMPANY AND LOCATE ALL UTILITIES PRIOR TO GRADING START.
- NO PART OF THE PROPOSED PROJECT IS LOCATED WITHIN A FLOOD HAZARD AREA.
- SPOT ELEVATIONS SHOWN ARE @ EDGE OF PAVEMENT UNLESS OTHERWISE NOTED ON PLAN.
- ALL CONCRETE CURB & GUTTER SHALL BE TYPE B-6.12 CURB UNLESS OTHERWISE NOTED ON THE PLANS.
- MATCH EXISTING GRADES AT PROPERTY LINES AND/OR CONSTRUCTION LIMITS.
- BACKFILL TO THE TOP OF CURBS.
- SITE SHALL BE GRADED TO PROVIDE POSITIVE DRAINAGE AWAY FROM BUILDINGS.
- ALL SIDEWALK CROSS SLOPES SHALL BE A MAXIMUM OF 2%.
- DESIGNATED HANDICAP PARKING AREAS SHALL BE GRADED TO A MAXIMUM OF 2%.
- SLOPES IN PAVEMENT SHALL BE UNIFORM TO AVOID PONDING OF PAVEMENT.
- THE CONTRACTOR SHALL CONFINE HIS GRADING OPERATIONS TO WITHIN CONSTRUCTION LIMITS AND EASEMENTS SHOWN ON THE PLANS. ANY DAMAGE TO PROPERTIES OUTSIDE THE SITE BOUNDARY SHALL BE AT THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
- THE CONTRACTOR SHALL APPLY NECESSARY MOISTURE CONTROL TO THE CONSTRUCTION AREA AND HAUL ROADS TO PREVENT THE SPREAD OF DUST.
- ALL FIELD TILES ENCOUNTERED SHALL BE REPLACED AND/OR CONNECTED TO THE STORM SEWER SYSTEM AND LOCATED AND IDENTIFIED ON THE RECORD PLANS BY THE CONTRACTOR.
- ALL STORM DRAINAGE CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH THE CITY OF MCHEMRY.



## HATCH LEGEND

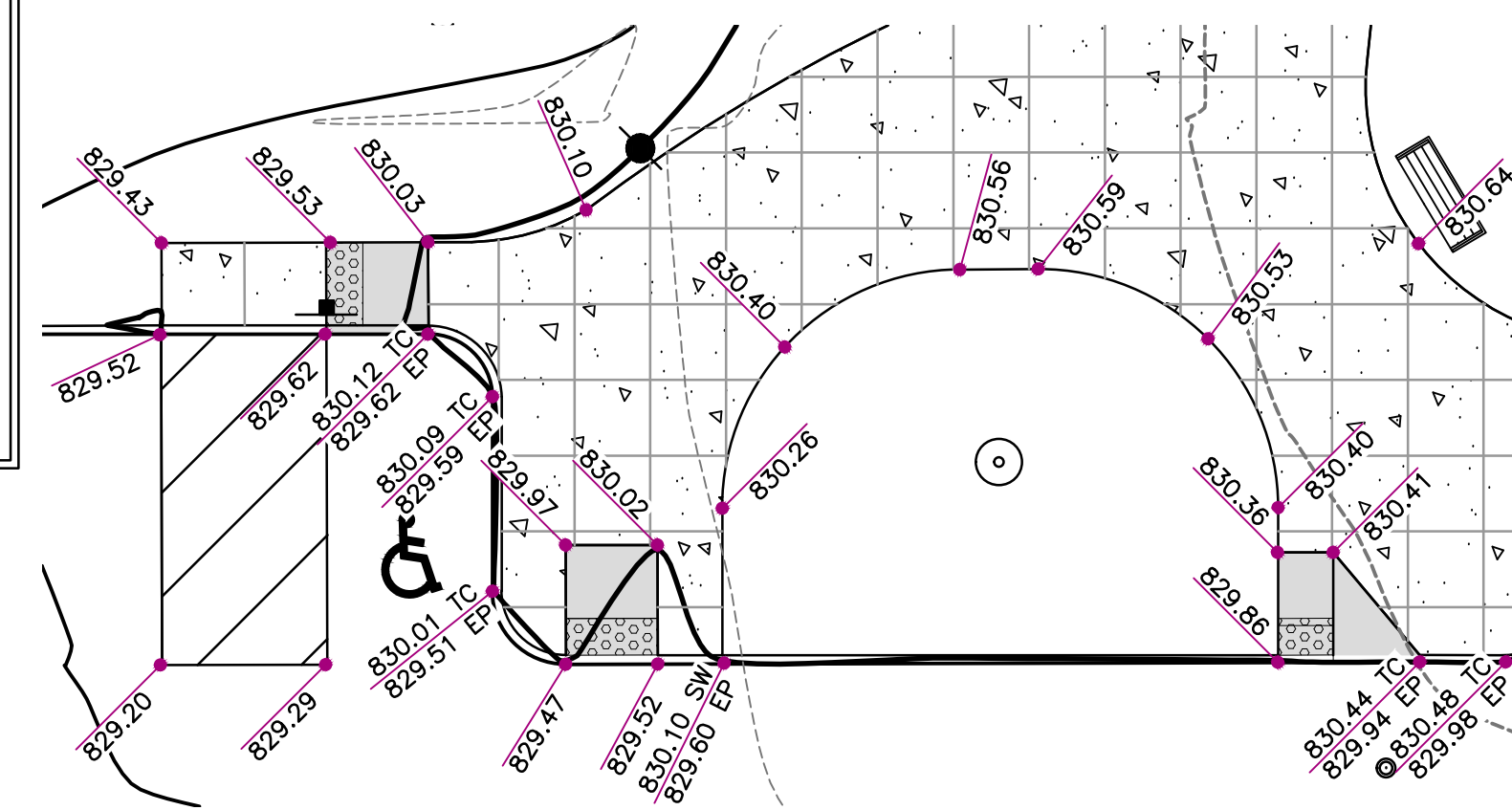
- ////// DENOTES REVERSE (SPILLING) CURB & GUTTER
- ===== DENOTES CONCRETE CURB & GUTTER (CATCHING)
- ===== DENOTES AREA OF DEPRESSED CURB AND GUTTER.
- ===== DENOTES AREA OF DEPRESSED SIDEWALK
- xxx.xx DENOTES EXISTING AND OR PROPOSED SPOT ELEVATIONS.
- > DENOTES PROPOSED DRAINAGE DIRECTION ARROW.
- > DENOTES PROPOSED OVERFLOW DIRECTION ARROW.

## # STORM SEWER TAGS:

- METAL END, 8" INV = 827.00
- 44 LIN FT SS PVC, 8" @ 2.23%
- UNUSED
- UNUSED
- TY C CATCH BASIN TY 8 GRATE RIM = 831.05 INV = 827.98 (W) INV = 827.98 (NE)
- 33 LIN FT SS PVC, 8" @ 0.50%
- TY C CATCH BASIN TY 8 GRATE RIM = 830.90 INV = 828.15 (E)

## GENERAL NOTES:

- ACCESSIBLE PARKING, RAMPS, AND SIGNAGE SHALL COMPLY WITH ADA ACCESSIBILITY GUIDELINES FOR BUILDINGS AND FACILITIES.
- ALL WORK SHALL BE IN ACCORDANCE WITH OSHA CODES AND STANDARDS. NOTHING INDICATED ON THE DRAWINGS SHALL RELIEVE THE CONTRACTOR FROM COMPLYING WITH ANY APPROPRIATE SAFETY REGULATIONS.
- 1 WEEK PRIOR TO CONSTRUCTION WITHIN CITY ROW OR ANY CONNECTION TO PUBLIC SEWERS, CONTRACTOR SHALL NOTIFY THE APPROPRIATE CITY ENGINEERING DIVISIONS:
- CONTRACTOR TO VERIFY BUILDING DIMENSIONS WITH ARCHITECTURAL PLANS. PLACE 3/4 INCH EXPANSION JOINT BETWEEN ALL P.C.C. PAVEMENT/ SIDEWALKS AND BUILDING. PLACE 1/2 INCH EXPANSION JOINT BETWEEN SIDEWALKS AND P.C.C. PAVEMENT. CUT/TRIM EXPANSION JOINTS TO BE FLUSH WITH SURFACE.
- ALL PROPERTY PINS SHALL BE PROTECTED FROM GRADING OR OTHER OPERATIONS. ANY PINS DISTURBED SHALL BE RESET AT THE CONTRACTOR'S EXPENSE.
- DO NOT STORE CONSTRUCTION MATERIALS AND EQUIPMENT IN THE RIGHT-OF-WAY.
- THE CONTRACTOR SHALL NOT DISTURB DESIRABLE GRASS AREAS AND DESIRABLE TREES OUTSIDE THE CONSTRUCTION LIMITS. THE CONTRACTOR SHALL NOT BE PERMITTED TO PARK OR SERVICE VEHICLES AND EQUIPMENT OR USE THESE AREAS FOR STORAGE OR MATERIALS. STORAGE, PARKING AND SERVICE AREAS WILL BE SUBJECT TO THE APPROVAL OF THE OWNER.
- THE CONTRACTOR IS RESPONSIBLE FOR REPLACING ANY AREAS OF PAVEMENT OR SIDEWALK NOT TO BE REMOVED THAT IS DAMAGED DUE TO OPERATING EQUIPMENT ON THE PAVEMENT OR SIDEWALK.
- THE CONTRACTOR MAY BE REQUIRED TO PLACE TEMPORARY WARNING DEVICES AND SAFETY FENCE AT CERTAIN LOCATIONS WHERE REPLACEMENT FEATURES ARE NOT INSTALLED THE SAME DAY, AS DIRECTED BY THE ENGINEER OR THE CITY.
- ALL CONSTRUCTION WITHIN PUBLIC ROW/EASEMENTS AND/OR ANY CONNECTION TO PUBLIC SEWERS AND STREETS, SHALL COMPLY WITH THE CITY CONSTRUCTION SPECIFICATIONS FOR SUBDIVISIONS AND LATEST EDITION OF ILDOT DESIGN STANDARDS



ADA RAMP & STALL GRADING DETAIL  
SCALE: 1"=10'

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APPROVED: JFV JOB NUMBER: 86140157  
CAD DATE: 2/3/2015 11:28:30 AM  
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BAR IS ONE INCH ON  
OFFICIAL DRAWINGS: 1"  
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ADJUST SCALE ACCORDINGLY.

NO.	DATE	BY	REVISION DESCRIPTION



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MCHEMRY, ILLINOIS 60050  
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SHAH CENTER PARKING LOT  
RESURFACING  
MCHEMRY, ILLINOIS



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CIVIL  
GRADING PLAN

SHEET NO.  
C.06



## NOTES:

This plan has been prepared to comply with the provisions of the NPDES Permit Number issued by the Illinois Environmental Protection Agency for Stormwater Discharges from Construction Site Activities and control measures shall meet the minimum standards and specifications of the Illinois Urban Manual unless otherwise stated.

### 1. Site Description.

a. The following is a description of the construction activity which is the subject of this plan: McHenry Shah Center, McHenry, IL

The proposed development consists of construction of a parking lot and patio. The construction activities for site improvements will include: site clearing, demolition, grubbing, mass, grading, pavement construction, installation of utilities including storm sewers, soil erosion and sedimentation control measures, as a minimum.

b. The following is a description of the intended sequence of major activities which will disturb soils for major portions of the construction site such as grubbing, excavation, and grading:

The sequence of the construction activities may be as follows:  
1) install silt filter fence. 2) site clearing, demolition of existing parking lot as shown on Demolition Plan. 3) mass grading. 4) underground utilities installation. 5) fine grading in pavement area, and 6) pavement construction. The soil erosion and sedimentation control items will be constructed as needed during the above construction activities.

c. The total area of the construction site is estimated to be 4.88 acres.

The total area of the site that is estimated to be disturbed by excavation, grading, or other activities, is 2.56 acres.

d. The estimated runoff coefficients of the various areas of the site after construction activities are completed are contained in the project drainage study, titled FINAL ENGINEERING DRAINAGE REPORT for McHenry Shah Center, McHenry, IL with (latest revision date) prepared by HR GREEN, INC. which is hereby incorporated by reference in this plan. Information describing the soils at the site is contained in the Geotechnical Report for the project, which is hereby incorporated by reference, or in an attachment to this plan.

### 2. Controls.

This section of the plan addresses the various controls that will be implemented for each of the major construction activities described in 1.b above. For each measure discussed, the contractors will be responsible for its implementation as indicated. Each such contractor has signed the required certification on forms which are attached to, and are a part of, this plan.

#### a. Erosion and Sediment Controls.

(i) STABILIZATION PRACTICES. Provided below is a description of interim and permanent stabilization practices, including site-specific scheduling of the implementation of the practices. Site plans will ensure that existing vegetation is preserved where attainable and disturbed portions of the site will be stabilized. Except as provided in 2.a. (i) (A) and 2.b. stabilization measures shall be initiated as soon as practicable in portions of the site where construction activities have temporarily or permanently ceased, but in no case more than 14 days after the construction activity in that portions of the site where construction activity will not occur for a period of 21 or more calendar days.

(A) Where the initiation of stabilization measures by the 14th day after construction activity temporarily or permanently ceases is precluded by snow cover, stabilization measures shall be initiated as soon as practicable thereafter.

The following interim and permanent stabilization practices, as a minimum will be implemented to stabilize the disturbed area of the site:

1. Permanent sodding
2. Inlet protection
3. Barrier filter
4. Stabilized construction entrance

(ii) STRUCTURAL PRACTICES. Provided below is a description of structural practices that will be implemented, to the degree attainable, to divert flows from exposed soils, store flows or otherwise limit runoff and the discharge of pollutants from exposed areas of the site. The installation of these devices may be subject to Section 404 of the Clean Water Act.

1. Storm sewer system
2. Permanent seeding/sodding
3. Inlet protection

#### b. Stormwater Management.

(i) Provided below is a description of measures that will be installed during the construction process to control pollutants in stormwater discharges that will occur after construction operations have been completed. The installation of these devices may be subject to Section 404 of the Clean Water Act.

The practices selected for implementation were determined on the basis of the technical guidance contained in IEPA's Standard Specifications for Soil Erosion and Sedimentation Control, McHenry County Watershed Development Ordinance and other ordinances listed in the Specifications.

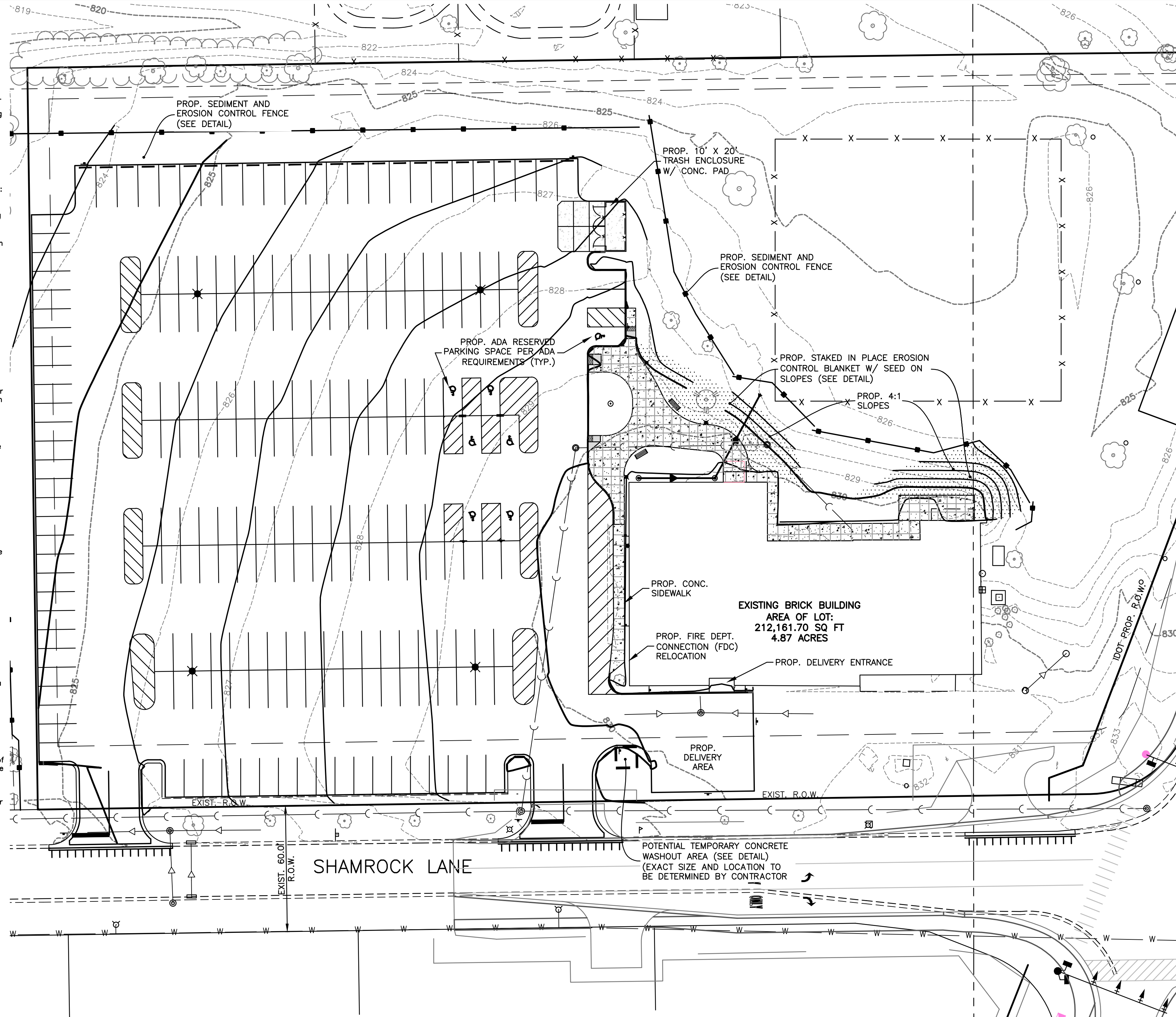
The stormwater pollutant control measures shall include:

1. Silt filter fence
2. Inlet Protection Filter
3. Storm sewers

### 2. Other Controls.

(i) Waste Disposal. The solid waste materials including trash, construction debris, excess construction materials, machinery, tools and other items will be collected and disposed off-site by the contractor. The contractor is responsible to acquire any permit required for such disposal. Burning on the site will not be permitted. No solid materials, including building materials, shall be discharged into Waters of the State, except as authorized by a Section 404 permit.

(ii) The provisions of this plan shall ensure and demonstrate compliance with applicable State and/or local waste disposal, sanitary sewer or septic system regulations.



## HATCH LEGEND

- 1. DENOTES RIP-RAP (SEE DETAIL) (LOCATION AND TYPE SPECIFIED ON PLAN)
- 2. DENOTES AREA TO UTILIZE EROSION CONTROL BLANKET (SEE DETAIL)
- 3. INDICATES TEMPORARY CONSTRUCTION ACCESS (SEE SHEET C-13 FOR DETAILS)
- 4. DENOTES PERIMETER EROSION BARRIER (SILT FENCE), INLET & PIPE PROTECTION
- 5. DENOTES PROPOSED DRAINAGE DIRECTION ARROW
- 6. DENOTES PROPOSED OVERLAND FLOW PATH

## PHASING NOTES:

### SEQUENCE OF MAJOR ACTIVITIES

1. INSTALL PERIMETER SILT FENCE
2. DEMOLISH EXISTING PARKING LOT
3. TREE REMOVAL AND PROTECTION, WHERE NECESSARY
4. STRIP AND STOCKPILE TOPSOIL, STABILIZE STOCKPILES WITHIN 1 DAY.
5. CONTINUE GRADING, STABILIZE COMPLETED AREAS WITH PERMANENT STABILIZATION OR INACTIVE AREAS (INCLUDING MASS GRADED LOTS) WITH TEMPORARY STABILIZATION WITHIN 1 DAY.
6. INSTALL ELECTRIC CONDUITS AND STORM SEWER, CURB AND GUTTER, WITH INLET PROTECTION.
7. APPLY STONE TO PARKING AREA, CONSTRUCT PATIO AREA AND SIDEWALKS.
8. COMPLETE GRADING AND INSTALL PERMANENT SOD/SEED AND PLANTINGS.
9. COMPLETE FINAL PAVING.
10. WHEN ALL CONSTRUCTION ACTIVITY IS COMPLETE AND THE SITE IS STABILIZED, RESOD/SEED ANY REMAINING DISTURBED AREAS. SEE SEEDING PLAN FOR DETAILS
11. REMOVE ALL TEMPORARY EROSION CONTROL MEASURES ONCE VEGETATION REACHES 70% COVERAGE.
12. CONTRACTOR SHALL ADHERE TO ALL PROVISIONS AND REQUIREMENTS NOTED IN THE STORMWATER POLLUTION PREVENTION PLAN FOR THIS PROJECT

## STANDARD SOIL EROSION AND SEDIMENT CONTROL NOTES:

1. CONTROL MEASURES SHALL MEET THE MINIMUM STANDARDS AND SPECIFICATIONS OF THE ILLINOIS URBAN MANUAL (WWW.AISWCD.ORG/IUM) UNLESS STATED OTHERWISE.
2. SOIL DISTURBANCE SHALL BE CONDUCTED IN SUCH A MANNER AS TO MINIMIZE EROSION. AREAS OF THE DEVELOPMENT SITE THAT ARE NOT TO BE DISTURBED SHALL BE PROTECTED FROM CONSTRUCTION TRAFFIC OR OTHER DISTURBANCE UNTIL FINAL STABILIZATION IS ACHIEVED.
3. SOIL STABILIZATION MEASURES SHALL CONSIDER THE TIME OF YEAR, DEVELOPMENT SITE CONDITIONS AND THE USE OF TEMPORARY OR PERMANENT MEASURES.
4. STABILIZATION BY SEEDING SHALL INCLUDE TOPSOIL PLACEMENT AND FERTILIZATION, AS NECESSARY.
5. NATIVE SEED MIXTURES SHALL INCLUDE RAPID-GROWING ANNUAL GRASSES OR SMALL GRAINS TO PROVIDE INITIAL, TEMPORARY SOIL STABILIZATION.
6. OFFSITE PROPERTY SHALL BE PROTECTED FROM EROSION AND SEDIMENTATION. VELOCITY DISSIPATION DEVICES SHALL BE PLACED AT CONCENTRATED DISCHARGE LOCATIONS AND ALONG THE LENGTH OF ANY OUTFALL CHANNEL, AS NECESSARY TO PREVENT EROSION.
7. SEDIMENT CONTROL MEASURES SHALL BE INSTALLED PRIOR TO THE DISTURBANCE OF TRIBUTARY AREAS.
8. STABILIZATION OF DISTURBED AREAS SHALL BE INITIATED IMMEDIATELY WHENEVER ANY CLEARING, GRADING, EXCAVATING OR OTHER EARTH DISTURBING ACTIVITIES HAVE PERMANENTLY CEASED ON ANY PORTION OF THE DEVELOPMENT SITE, OR TEMPORARY CEASED ON ANY PORTION OF THE DEVELOPMENT SITE AND WILL NOT RESUME FOR A PERIOD EXCEEDING 14 CALENDAR DAYS. STABILIZATION OF DISTURBED AREAS SHALL BE INITIATED WITHIN 1 WORKING DAY OF PERMANENT OR TEMPORARY CESSATION OF EARTH DISTURBING ACTIVITIES AND SHALL BE COMPLETED AS SOON AS POSSIBLE, BUT NOT LATER THAN 14 CALENDAR DAYS. FROM THE INITIATION OF STABILIZATION WORK IN THE AREA. EXCEPTIONS TO THESE TIME FRAMES ARE SPECIFIED BELOW.
  - a. WHERE THE INITIATION OF STABILIZATION MEASURES IS PRECLUDED BY SNOW COVER, STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICABLE; AND
  - b. IN AREAS WHERE CONSTRUCTION ACTIVITY HAS TEMPORARILY CEASED AND WILL RESUME AFTER 14 DAYS, A TEMPORARY STABILIZATION METHOD MAY BE USED.
9. DISTURBANCE OF STEEP SLOPES SHALL BE MINIMIZED. AREAS OR EMBANKMENTS HAVING SLOPES STEEPER THAN 5:1 SHALL BE STABILIZED WITH STAKED IN PLACE SOD, EROSION CONTROL BLANKET IN COMBINATION WITH SEEDING, OR AN EQUIVALENT CONTROL MEASURE.
10. PERIMETER CONTROL MEASURES SHALL BE PROVIDED DOWNSLOPE AND PERPENDICULAR TO THE FLOW OF RUNOFF FROM DISTURBED AREAS, WHERE THE TRIBUTARY AREA IS GREATER THAN 5,000 SQUARE FEET, AND WHERE RUNOFF WILL FLOW IN A SHEET FLOW MANNER. PERIMETER EROSION CONTROL SHALL BE PROVIDED.
11. THE STORMWATER MANAGEMENT SYSTEM SHALL BE PROTECTED FROM EROSION AND SEDIMENTATION DOWNSLOPE FROM DISTURBED AREAS. INLET PROTECTION THAT REDUCES SEDIMENT LOADING, WHILE ALLOWING RUNOFF ENTER THE INLET SHALL BE REQUIRED FOR ALL CHANNELS. FILTER FABRIC INLET PROTECTION AND STRAW BALE DITCH CHECKS ARE NOT ACCEPTABLE CONTROL MEASURES.
12. IF DEWATERING SERVICES ARE USED, DISCHARGES SHALL BE ROUTED THROUGH AN EFFECTIVE SEDIMENT CONTROL MEASURE (e.g., SEDIMENT TRAP OR AN EQUIVALENT CONTROL MEASURE). THE ENFORCEMENT OFFICER SHALL BE NOTIFIED PRIOR TO THE COMMENCEMENT OF DEWATERING.
13. ALL TEMPORARY SOIL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED WITHIN 30 DAYS AFTER FINAL STABILIZATION OF THE DEVELOPMENT SITE IS ACHIEVED OR AFTER THE TEMPORARY MEASURES ARE NO LONGER NECESSARY. TRAPPED SEDIMENT SHALL BE REMOVED AND DISTURBED AREAS SHALL BE PERMANENTLY STABILIZED.
14. STOCKPILED SOIL AND MATERIALS SHALL BE REMOVED FROM THE FLOOD HAZARD AREAS AT THE END OF EACH WORK DAY. SOILS AND MATERIALS STOCKPILED IWMC OR BUFFER AREAS SHALL BE PLACED ON TIMBER MATS, OR AN EQUIVALENT CONTROL MEASURE.
15. EFFECTIVE CONTROL MEASURES SHALL BE UTILIZED TO MINIMIZE THE DISCHARGE OF POLLUTANTS FROM THE DEVELOPMENT SITE. AT A MINIMUM, CONTROL MEASURES SHALL BE IMPLEMENTED IN ORDER TO:
  - a. MINIMIZE THE DISCHARGE OF POLLUTANTS FROM EQUIPMENT AND VEHICLE WASHING, AND WHEEL WASH WATER, AND OTHER WASH WATER; AND
  - b. MINIMIZE THE EXPOSURE OF BUILDING MATERIALS, BUILDING PRODUCTS, CONSTRUCTION WASTES, TRASH, LANDSCAPE MATERIALS, FERTILIZER, PESTICIDES, HERBICIDES, DETERGENTS, VEHICLE FLUIDS, SANITARY WASTE, AND OTHER MATERIALS PRESENT ON A DEVELOPMENT SITE TO PRECIPITATION AND STORMWATER.
16. ADEQUATE RECEPTACLES SHALL BE PROVIDED FOR THE DEPOSITING OF ALL CONSTRUCTION MATERIAL DEBRIS GENERATED DURING THE DEVELOPMENT PROCESS. THE APPLICANT SHALL NOT CAUSE OR PERMIT THE DUMPING, DEPOSITING, DROPPING, THROWING, DISCARDING OR LEAVING OF CONSTRUCTION MATERIAL DEBRIS UPON OR INTO ANY DEVELOPMENT SITE, CHANNEL, OR IWMC. THE DEVELOPMENT SITE SHALL BE MAINTAINED FREE OF CONSTRUCTION MATERIAL DEBRIS.
17. THE ENFORCEMENT OFFICER MAY REQUIRE ADDITIONAL OR ALTERNATE SOIL EROSION AND SEDIMENT CONTROL MEASURES, BASED ON DEVELOPMENT SITE SPECIFIC CONSIDERATIONS AND THE EFFECTIVENESS OF THE INSTALLED CONTROL MEASURES.

## EROSION CONTROL NOTES:

1. ALL SEDIMENTATION AND EROSION CONTROL REGULATIONS SHALL COMPLY WITH THE McHENRY COUNTY WATERSHED DEVELOPMENT ORDINANCE REQUIREMENTS.
2. NO LAND DISTURBING ACTIVITIES SHALL COMMENCE UNTIL APPROVAL TO DO SO HAS BEEN RECEIVED BY GOVERNING AUTHORITIES. CITY REQUIRES A 48-HOUR NOTIFICATION FOR SCHEDULING THE SESC INSPECTION. IN ADDITION, NO LAND CLEARING OR GRADING SHALL BEGIN UNTIL ALL PERIMETER EROSION AND SEDIMENT CONTROL MEASURES HAVE BEEN INSTALLED. (INCLUDING STORM WATER POLLUTION PREVENTION PLAN PER THE DEVELOPMENT CRITERIA.)
3. UTILIZE EXCELSIOR BLANKET OR SOD ON ALL SLOPES OF 5:1 OR GREATER.
4. ALL STREETS AND DRIVEWAYS MUST BE KEPT CLEAN AT ALL TIMES.
5. IF ANY ADDITIONAL SOIL EROSION MEASURES ARE DEEMED NECESSARY BY THE CITY ENGINEER OR HIS REPRESENTATIVE, THESE MEASURES MUST BE IMMEDIATELY IMPLEMENTED BY THE CONTRACTOR.
6. REMOVE ALL DEBRIS TRANSFERRED INTO THE ROW OR ADJOINING PROPERTY AT THE END OF EACH WORK DAY.

## STANDARD DRAIN TILE NOTES:

1. DRAIN TILES DISTURBED DURING REGULATED DEVELOPMENT SHALL BE RECONNECTED BY THOSE RESPONSIBLE FOR THEIR DISTURBANCE, UNLESS THE DEVELOPMENT PLANS SPECIFY ABANDONMENT OF THE DRAIN TILES.
2. ALL ABANDONED DRAIN TILES WITHIN THE DISTURBED AREAS SHALL BE REMOVED IN THEIR ENTIRETY.
3. DRAIN TILES WITHIN THE DISTURBED AREA OF THE DEVELOPMENT SITE SHALL BE REPLACED, BYPASSED, AROUND THE DEVELOPMENT SITE OR INTERCEPTED AND CONNECTED TO THE STORMWATER MANAGEMENT SYSTEM FOR THE DEVELOPMENT SITE. THE SIZE OF THE REPLACED OR BYPASSED DRAIN TILE SHALL BE EQUIVALENT TO THE EXISTING DRAIN TILE.

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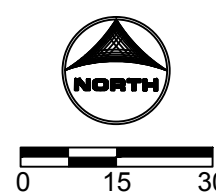
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SHAH CENTER PARKING LOT  
RESURFACING  
McHENRY, ILLINOIS

CIVIL  
EROSION CONTROL PLAN

SHEET NO.  
C.07

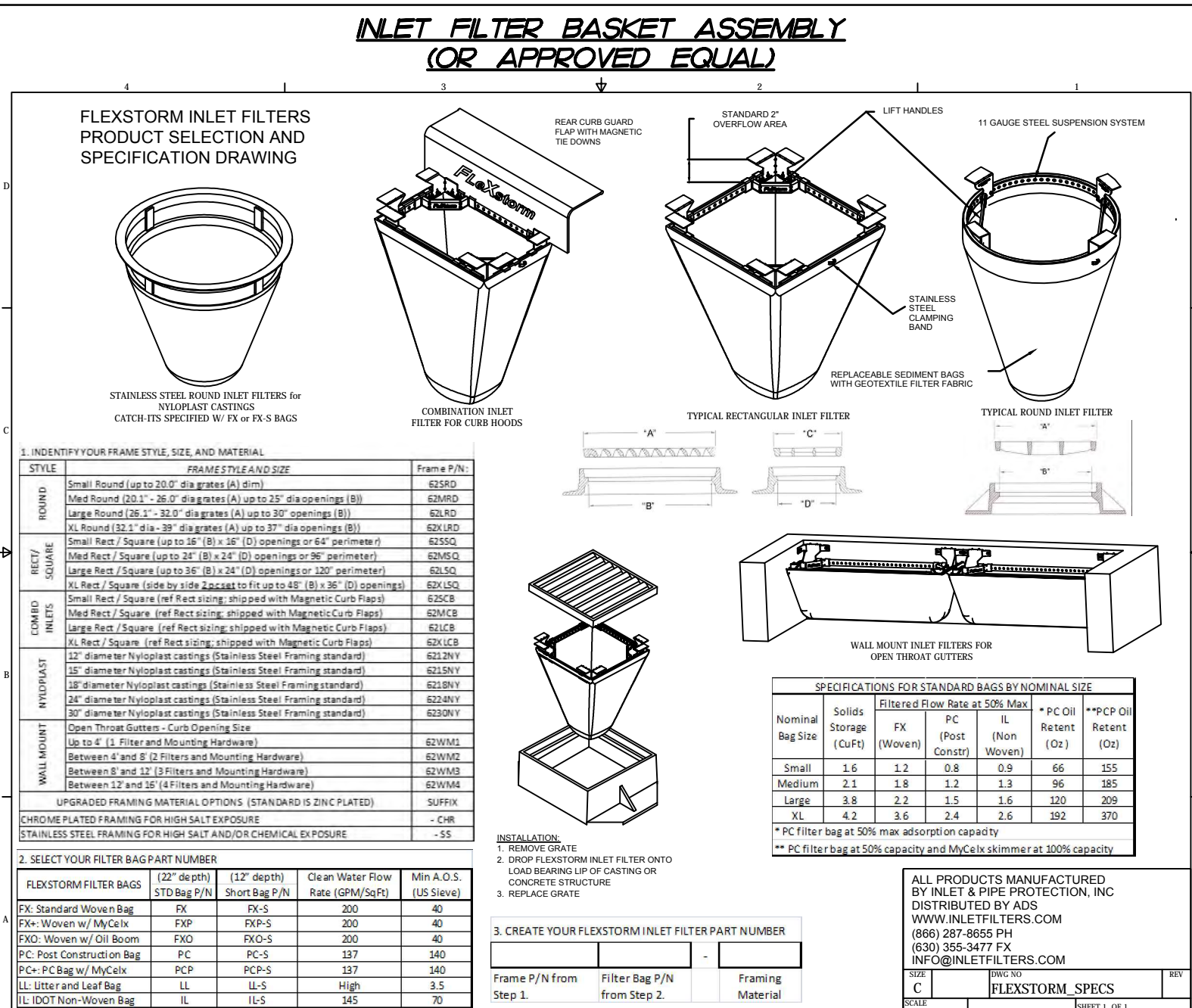
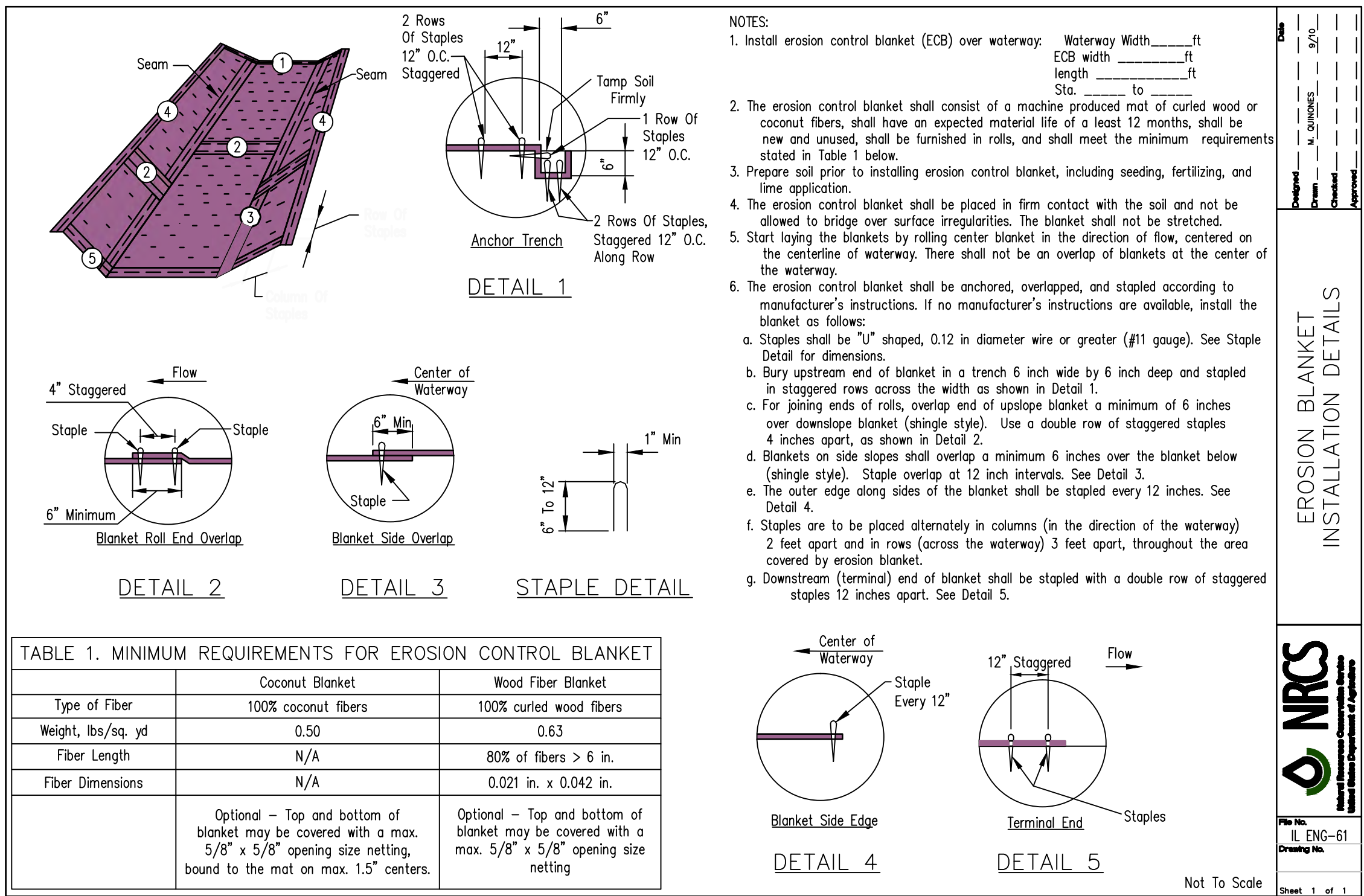
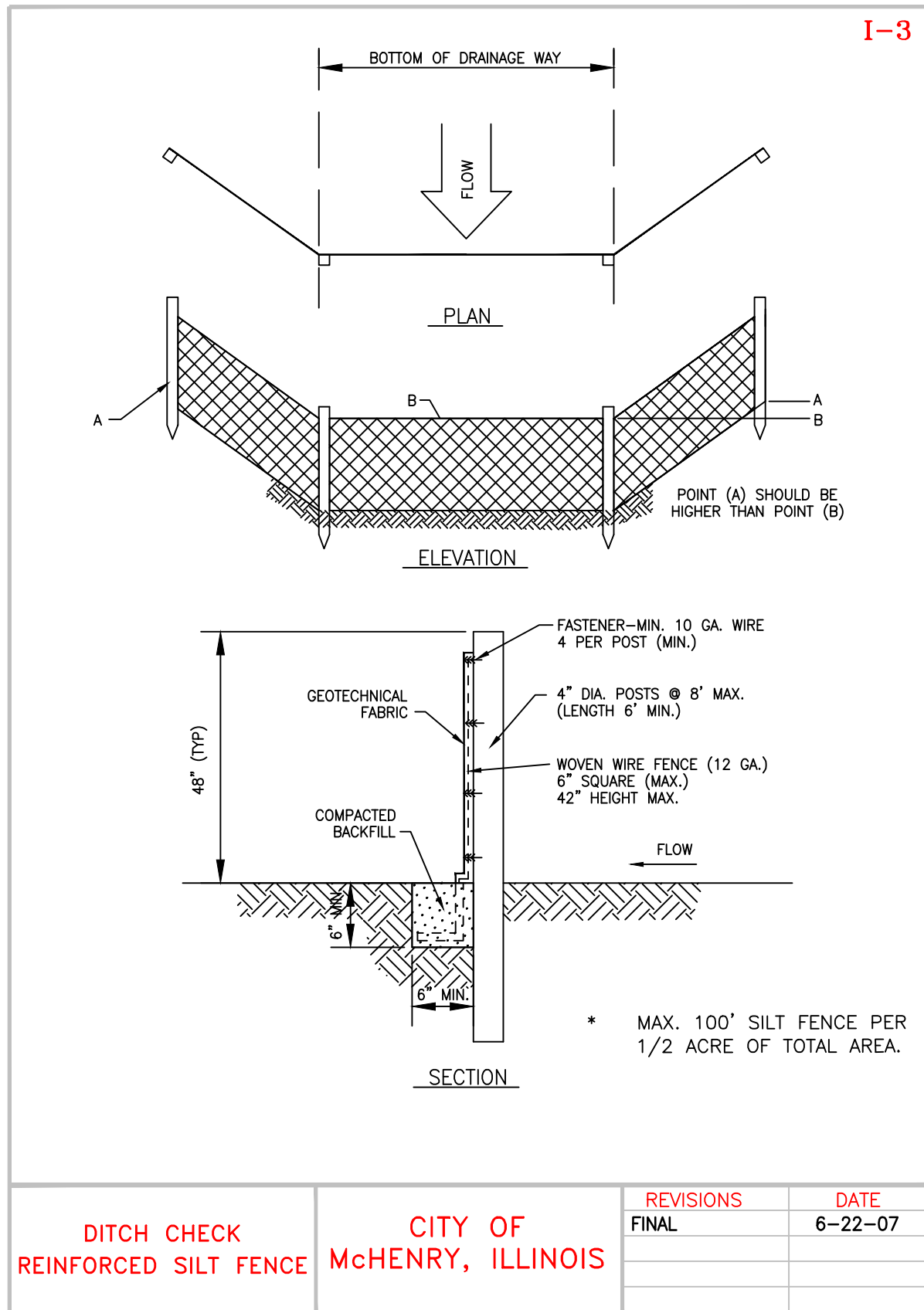
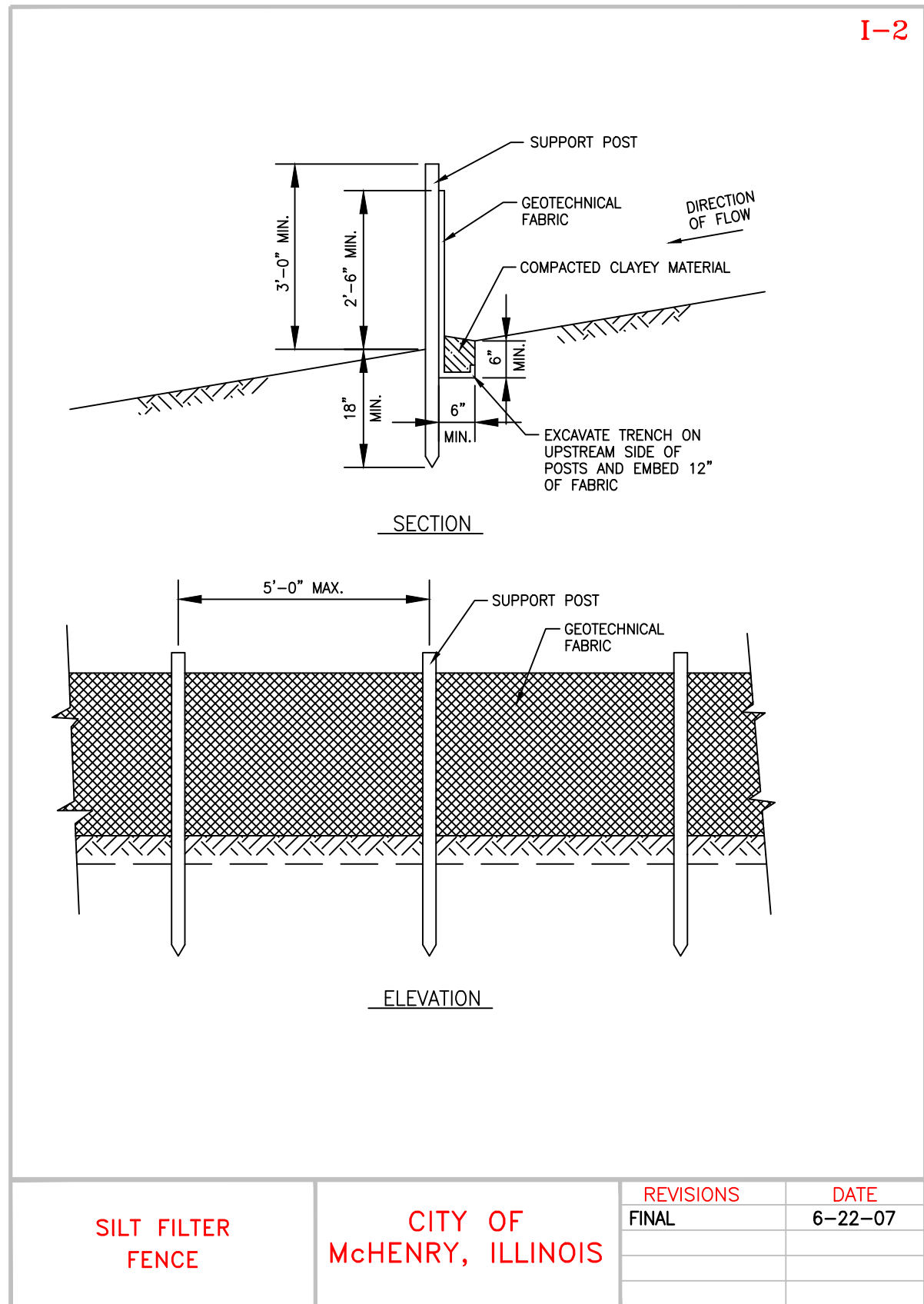


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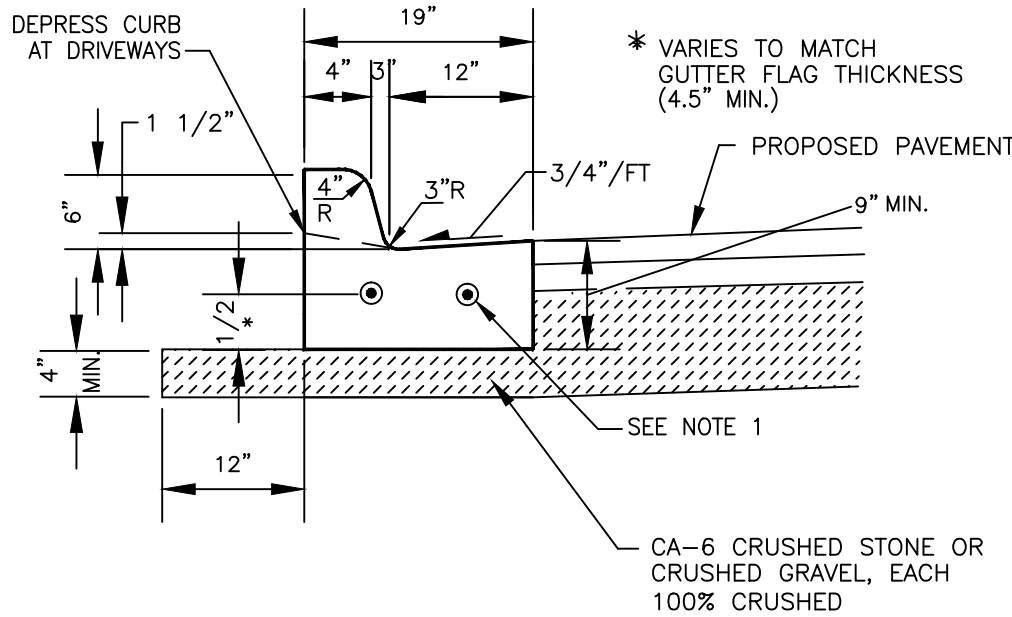


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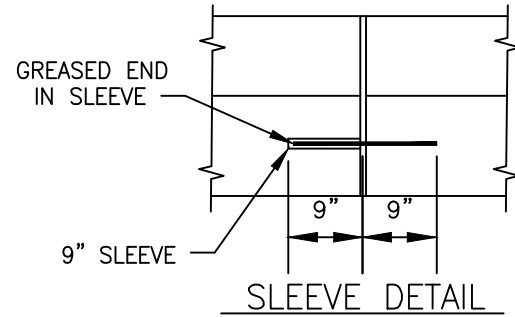








CURB & GUTTER TYPE M-6.12  
NO SCALE



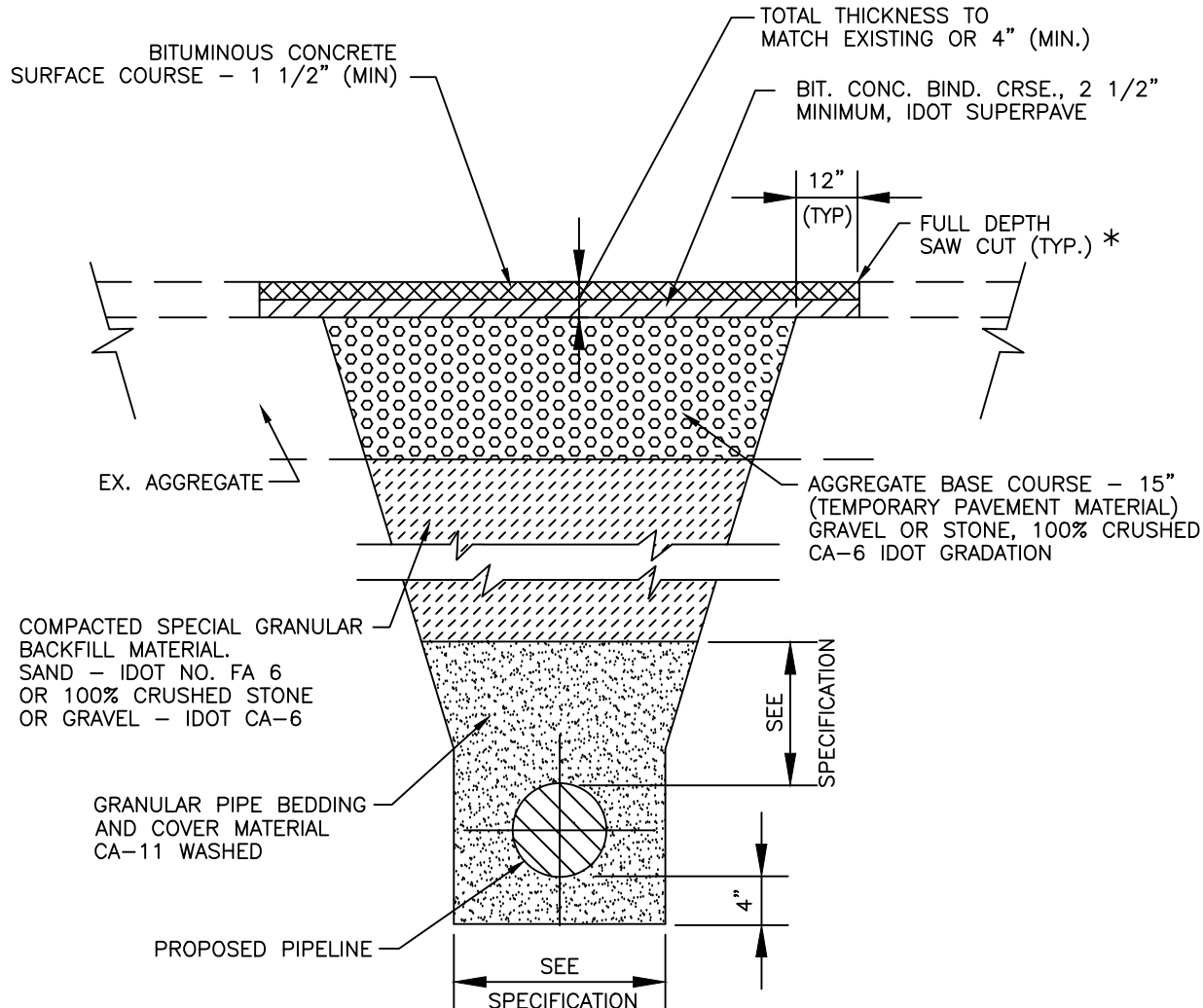
NOTES:

- EXPANSION JOINTS W/ 3/4" PREFORMED EXPANSION JOINT MATERIAL & TWO (2) #5 SMOOTH DOWEL BARS WITH GREASE CAPS SHALL BE PLACED:
  - AT ENDS OF INTERSECTION RADI, P.C.'S, RADIUS POINTS, & BACK OF CUL-DE-SACS
  - 5 FT. ON EACH SIDE OF DRAINAGE STRUCTURES
  - MAX. OF 50 FT. INTERVALS
  - WHERE NEW CURB MEETS EXISTING CURB, THE EXISTING CURB SHALL BE DRILLED AND TWO (2) #4 BARS, 12" LONG SHALL BE PLACED INTO THE SIDE OF THE NEW CURB & GUTTER TO A DEPTH OF 6".
- TOOL OR SAWCUT CONTRACTION JOINTS AT 10 FT. INTERVALS 2" DEEP.
- SAWCUTS SHALL BE MADE WITHIN TWENTY-FOUR (24) HRS. AND SEALED W/ JOINT SEALANT. JOINTS SHALL BE CLEAN AND DRY PRIOR TO APPLICATION OF SEALANT.
- CONTINUOUS REINFORCEMENT WITH #4 STEEL REBAR

CURB AND GUTTER  
TYPE M-6.12

CITY OF  
McHENRY, ILLINOIS

REVISIONS	DATE
FINAL	6-22-07
UPDATE	8-27-07

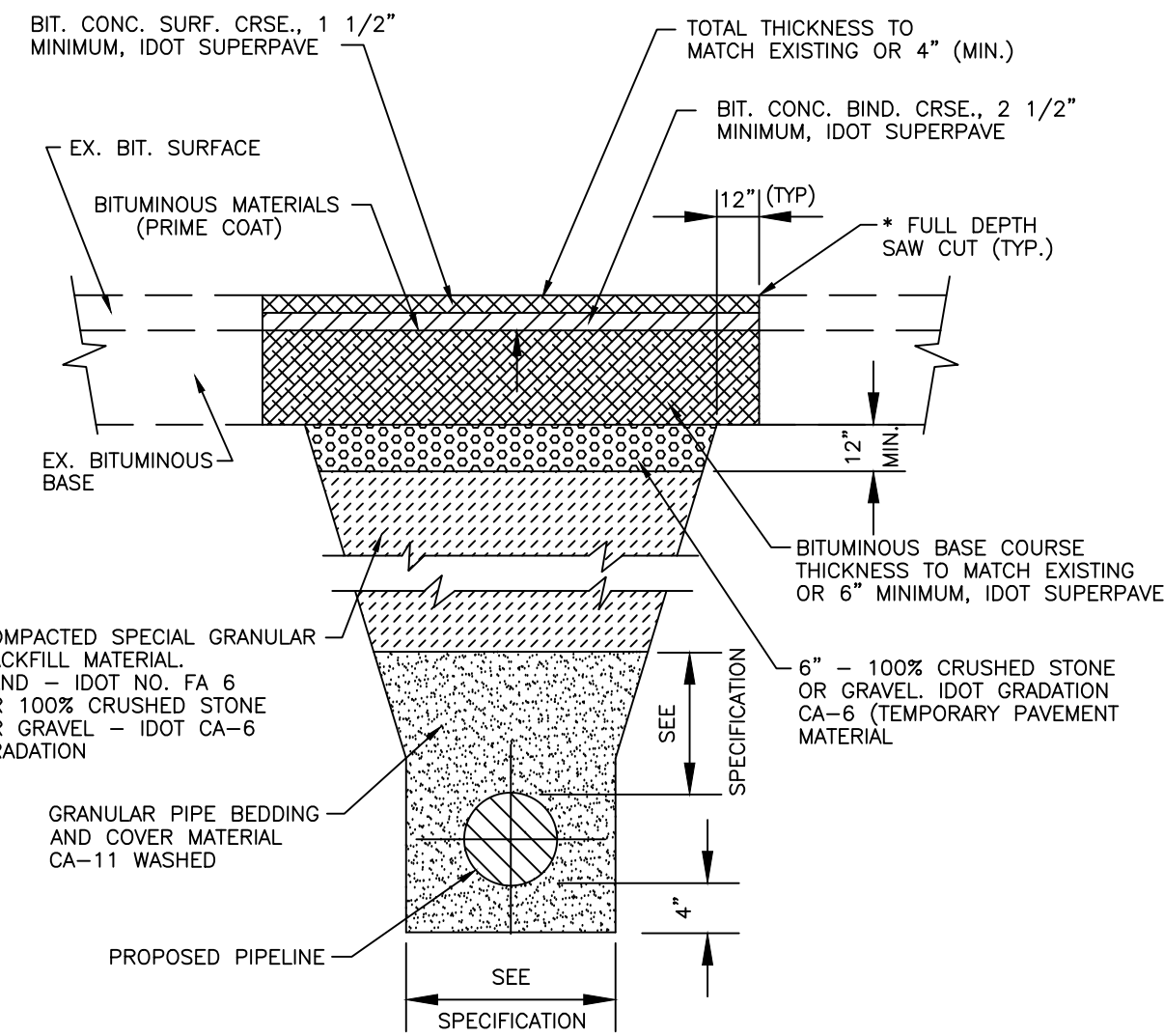


\* FULL DEPTH SAWCUT PRIOR TO EXCAVATION. FULL DEPTH SAWCUT REQUIRED AGAIN PRIOR TO RESTORATION AT THE DIRECTION OF THE CITY REPRESENTATIVE.

EXISTING PAVEMENT  
TYPICAL TRENCH DETAIL  
AGGREGATE BASE

CITY OF  
McHENRY, ILLINOIS

REVISIONS	DATE
FINAL	6-22-07
UPDATE	8-27-07



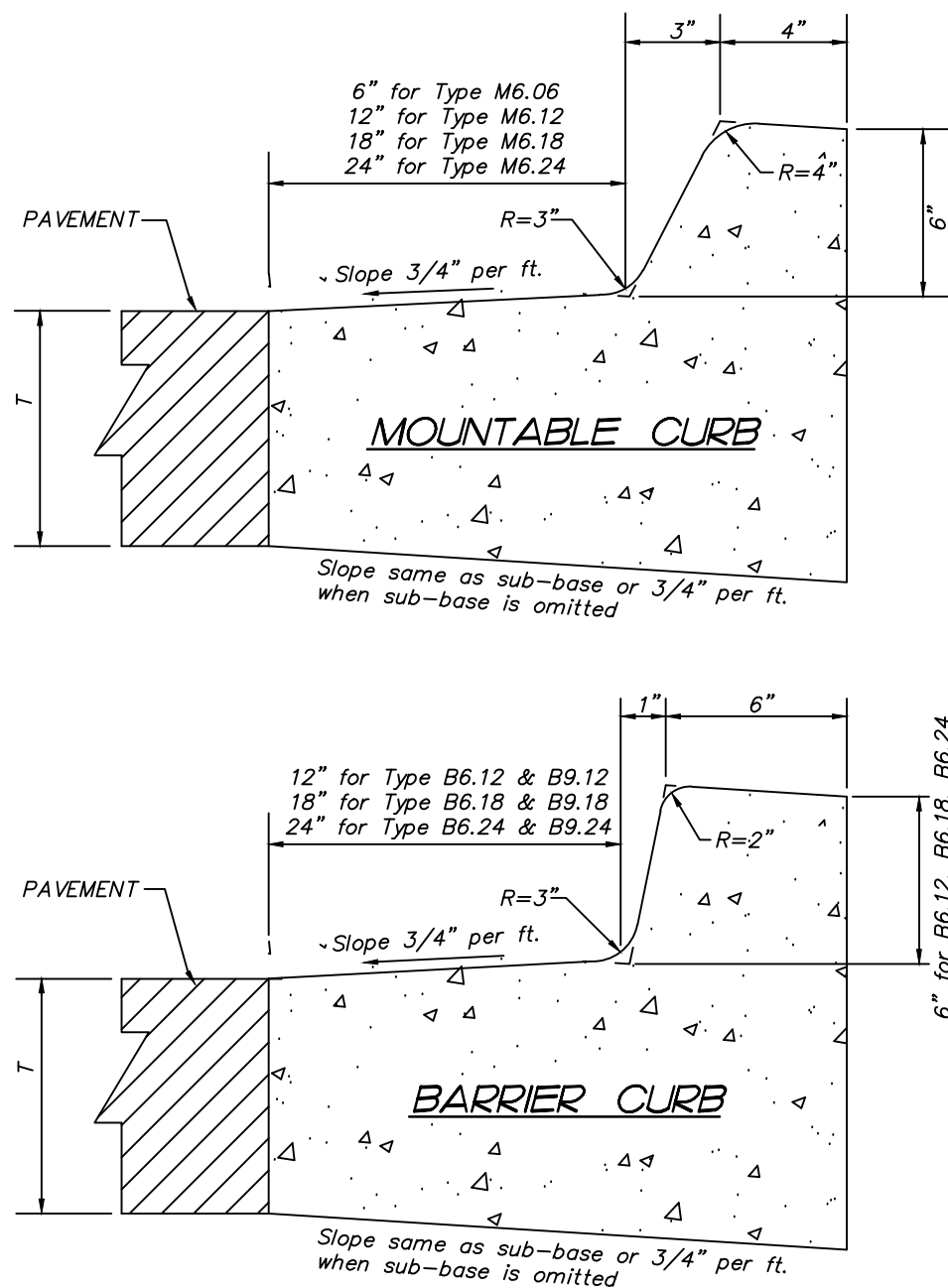
\* FULL DEPTH SAWCUT PRIOR TO EXCAVATION. FULL DEPTH SAWCUT REQUIRED AGAIN PRIOR TO RESTORATION AT THE DIRECTION OF THE CITY REPRESENTATIVE.

EXISTING PAVEMENT  
TYPICAL TRENCH DETAIL  
BITUMINOUS BASE

CITY OF  
McHENRY, ILLINOIS

REVISIONS	DATE
FINAL	6-22-07
UPDATE	8-27-07

REVERSE CONCRETE CURB AND GUTTER



THICKNESS - T - Thickness of pavement. When curb & gutter is constructed adjacent to flexible pavement, the vertical thickness of the gutter flag shall be 9". Also, tie bars shall be omitted.

DRAINAGE OPENINGS - At all locations where metal casings are to be incorporated in the curb and gutter, a 1" thick preformed joint filler, conforming to the cross sections of the curb and gutter, shall be installed in the curb and gutter a distance of 10 ft. from each side of the metal casing. When the width of the metal casing is less than the width of the curb and gutter, 2 - No. 4 rebars (L = 12" + casting length + 12") shall be incorporated in the continuous portion of concrete gutter in front of the casting.

TRANSITIONS - The transition from full height curb to depressed curb shall be made at the rate of 3" per foot of length or flatter.

JOINTS - In addition to the requirements of Article 606.06 of the Standard Specifications, joints shall be constructed as follows.

Contraction joints and expansion joints shall be installed in the curb and gutter in prolongation with joints in adjacent P.C.C. pavement or base course.

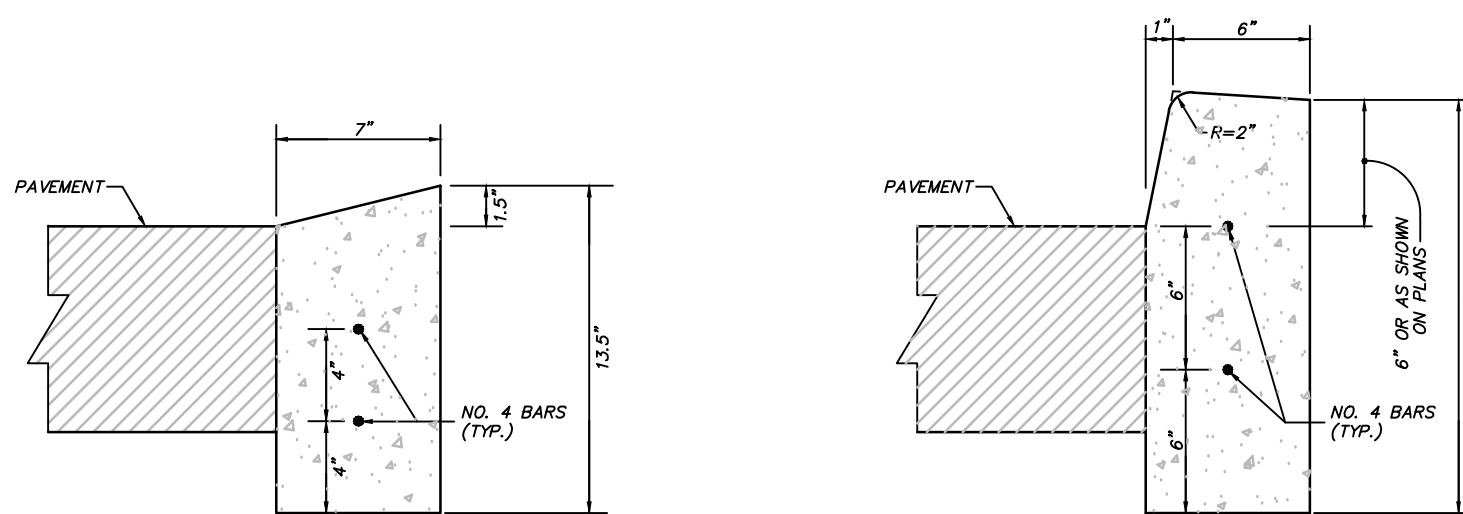
When curb and gutter is constructed adjacent to flexible pavement, a 1" thick preformed expansion joint filler, conforming to the cross section of the curb and gutter shall be installed at points of curvature for short radius curves and at construction joints. Contraction joints shall be placed between expansion joints at distances not to exceed 25 feet.

All expansion joints shall be provided with a 1 1/4 dia. X 18" coated smooth dowel bar conforming to Article 1006.11(b) of the Standard Specifications. The dowel bar shall be fitted with a cap having a pinched stop that will provide 1" of expansion.

All construction joints shall be provided with 1/2" dia. deformed steel tie bars 30" long conforming to AASHTO M-31 or M-53. Tie bars shall be placed on 9" centers (minimum 2 per joint).

RCURB

CONCRETE BARRIER CURB - TYPE B  
(ADJACENT TO FLEXIBLE PAVEMENT)



DEPRESSED CURB

BARRIER CURB

JOINTS-IN ADDITION TO THE REQUIREMENTS OF ART. 606.06 OF THE STANDARD SPECIFICATIONS, JOINTS SHALL BE CONSTRUCTED AS FOLLOWS.

CONTRACTION JOINTS AND EXPANSION JOINTS SHALL BE INSTALLED IN THE CURB OR CURB AND GUTTER IN PROLONGATION WITH JOINTS IN ADJACENT P.C.C. PAVEMENT OR BASE COURSE.

WHEN CURB AND GUTTER IS CONSTRUCTED ADJACENT TO FLEXIBLE PAVEMENT, A 1" THICK PREFORMED EXPANSION JOINT FILLER, CONFORMING TO THE CROSS SECTION OF THE CURB AND GUTTER, SHALL BE INSTALLED AT POINTS OF CURVATURE FOR SHORT RADIUS CURVES AND AT CONSTRUCTION JOINTS. CONTRACTION JOINTS SHALL BE PLACED BETWEEN EXPANSION JOINTS AT DISTANCES NOT TO EXCEED 20 FEET.

ALL EXPANSION JOINTS SHALL BE PROVIDED WITH A 1 1/4" DIAMETER X 18" COATED SMOOTH DOWEL BAR CONFORMING TO ART. 1006.11(b) OF THE STANDARD SPECIFICATIONS. THE DOWEL BAR SHALL BE FITTED WITH A CAP HAVING A PINCHED STOP THAT WILL PROVIDE 1" OF EXPANSION.

ALL CONSTRUCTION JOINTS SHALL BE PROVIDED WITH 1/2" DIAMETER DEFORMED STEEL TIE BARS 30" LONG CONFORMING TO AASHTO M-31 OR M-53. TIE BARS SHALL BE PLACED ON 9" CENTERS (MINIMUM 2 PER JOINT).

TRANSITIONS-THE TRANSITION FROM FULL HEIGHT CURB TO DEPRESSED SHALL BE MADE AT THE RATE OF 3" PER FOOT OF LENGTH OR FLATTER.

EXPANSION JOINTS SHALL BE PLACED AT INTERVALS NOT TO EXCEED 100 FEET.

CRB-B

FOR BID

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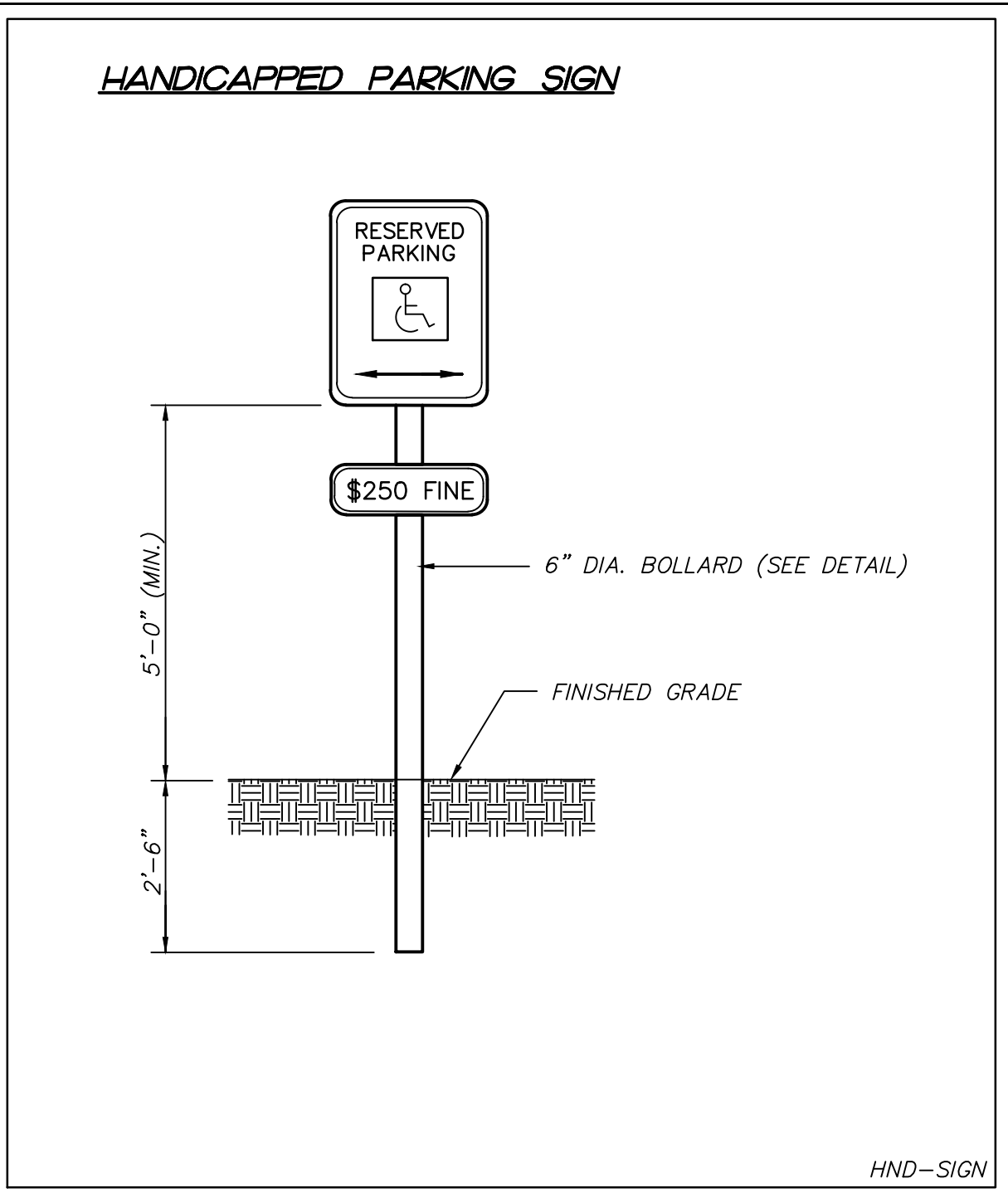
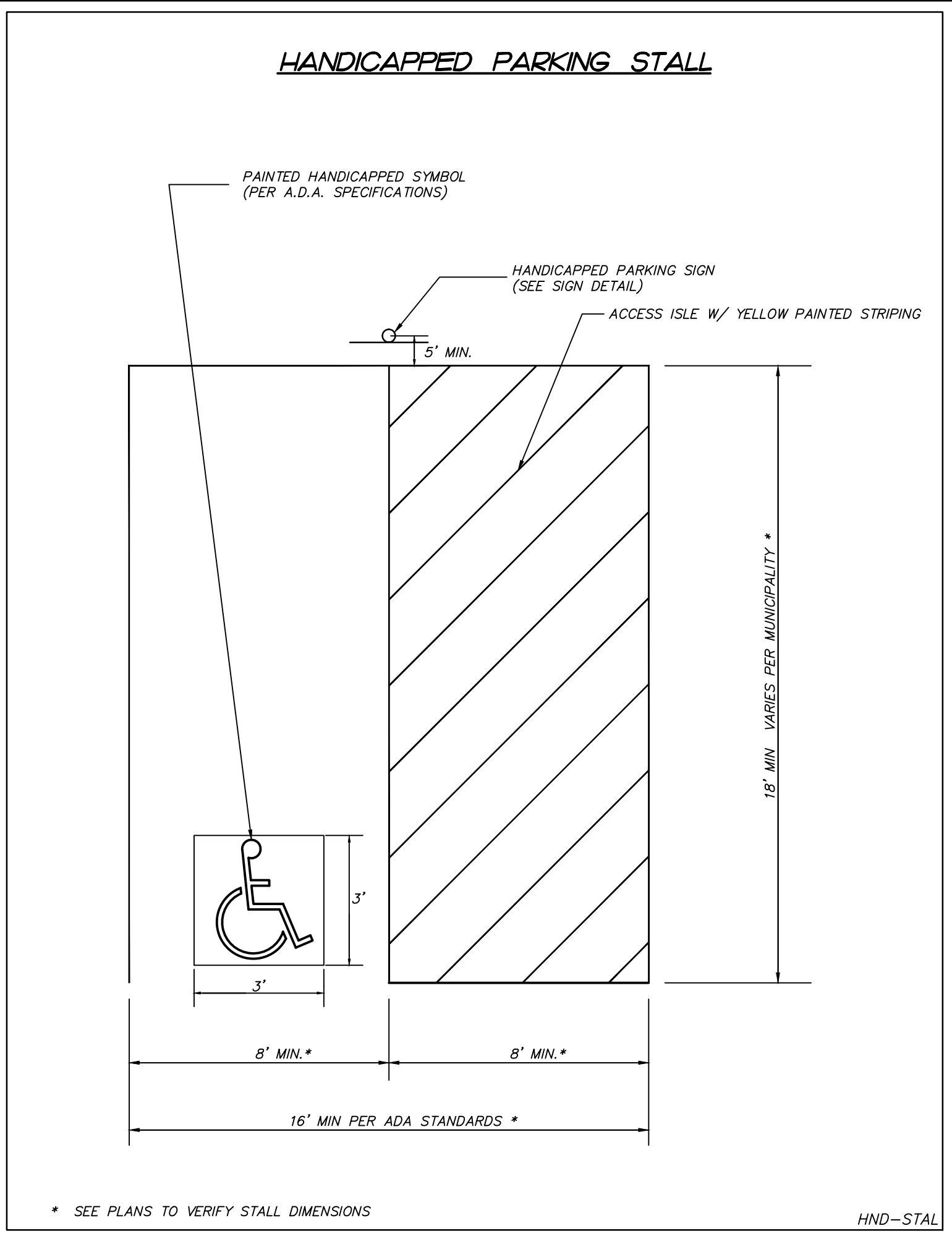
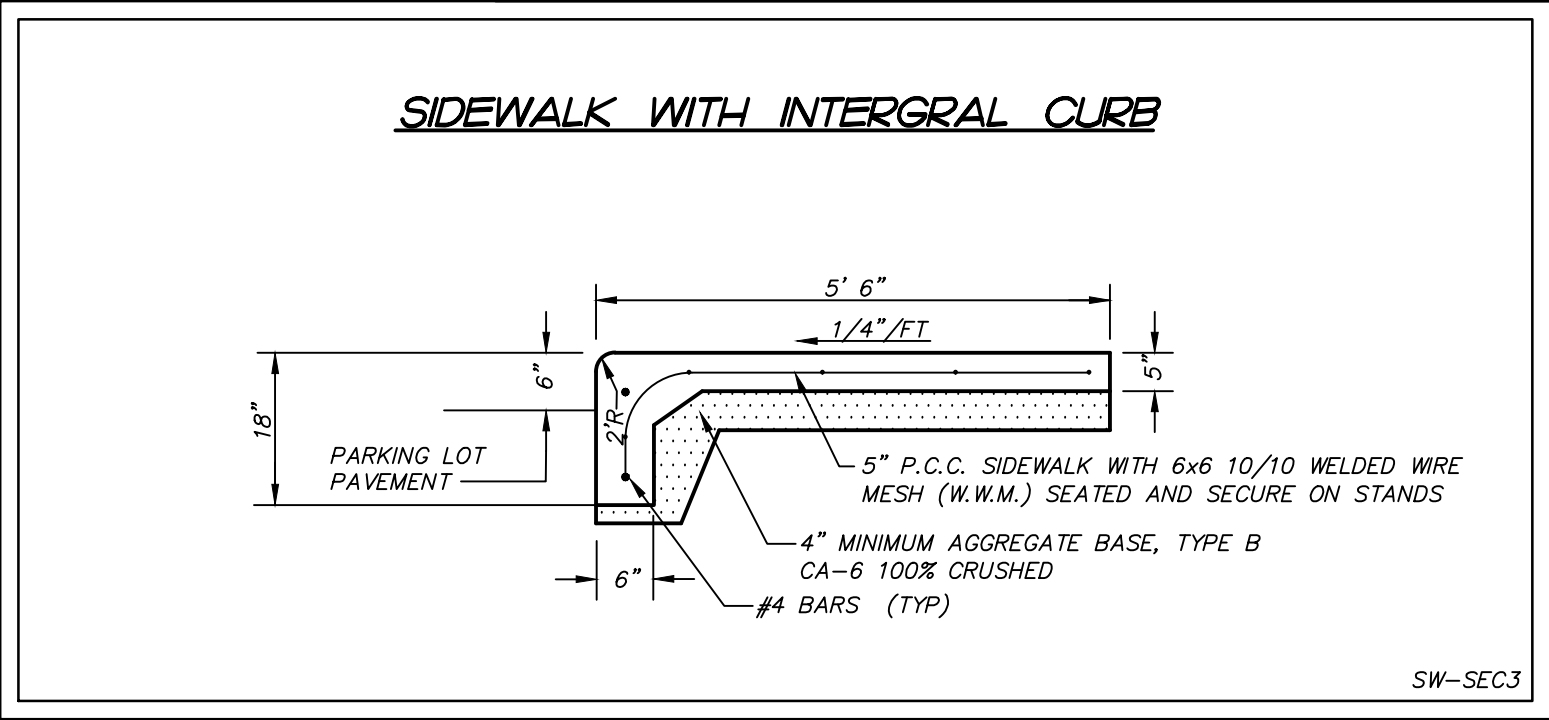
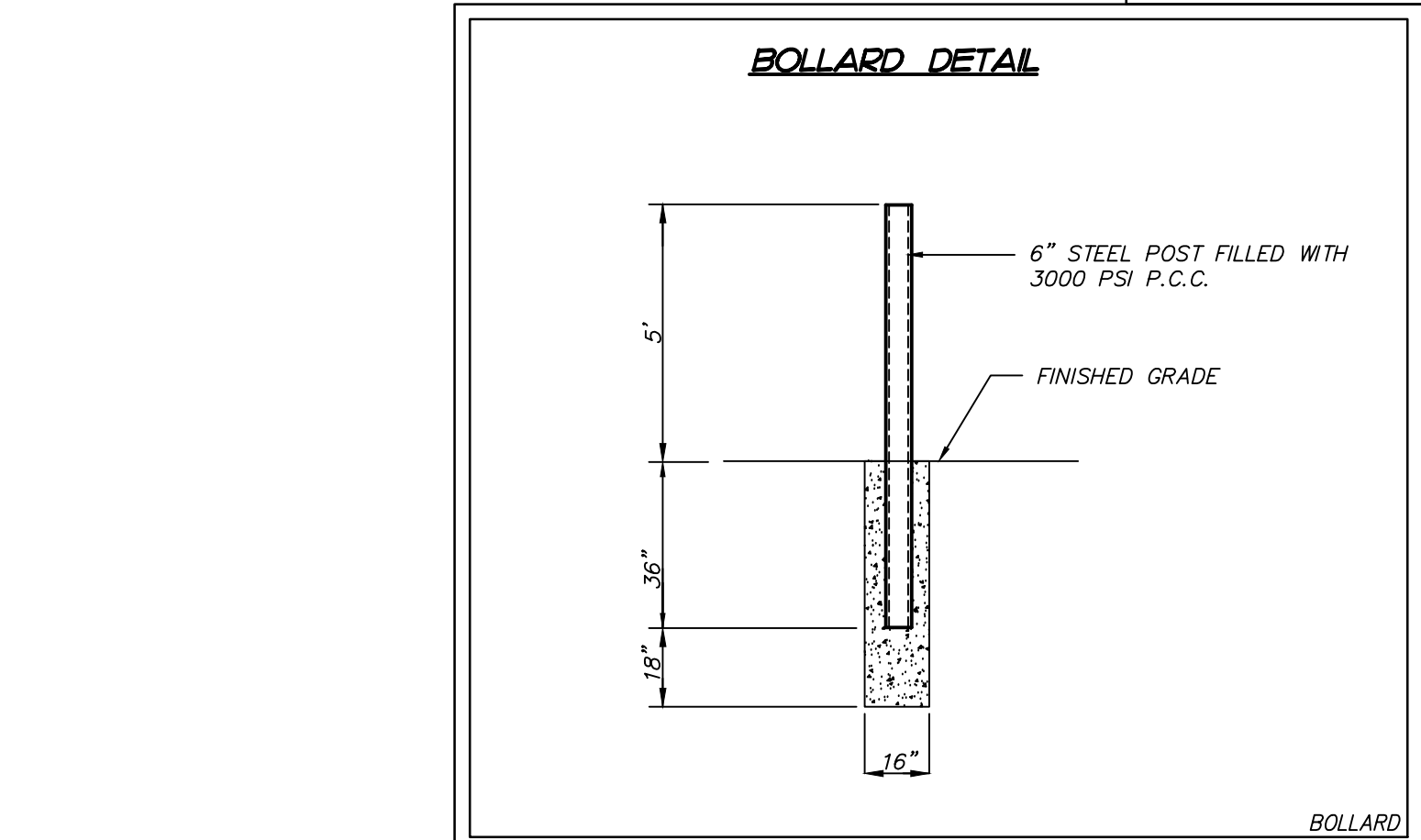
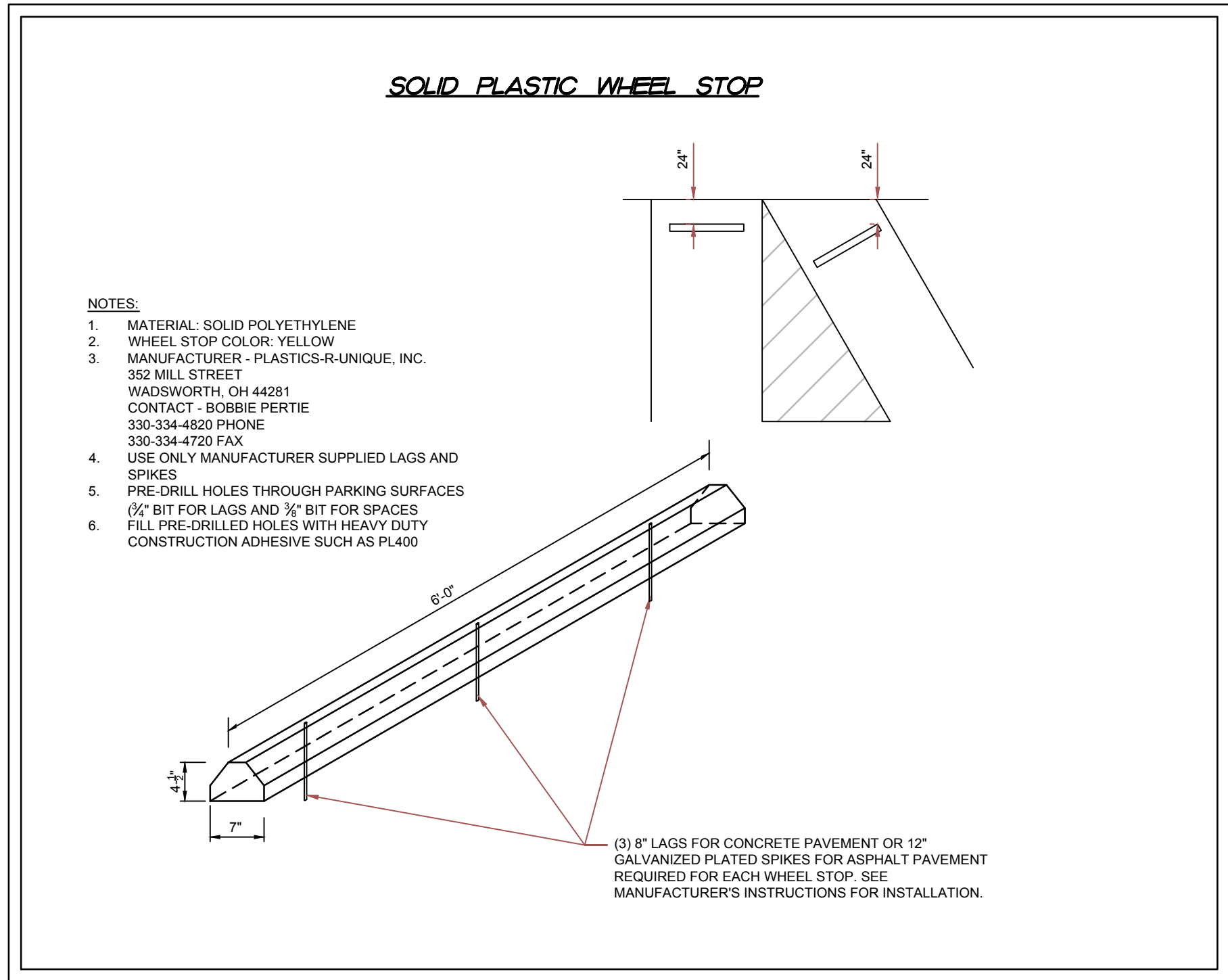
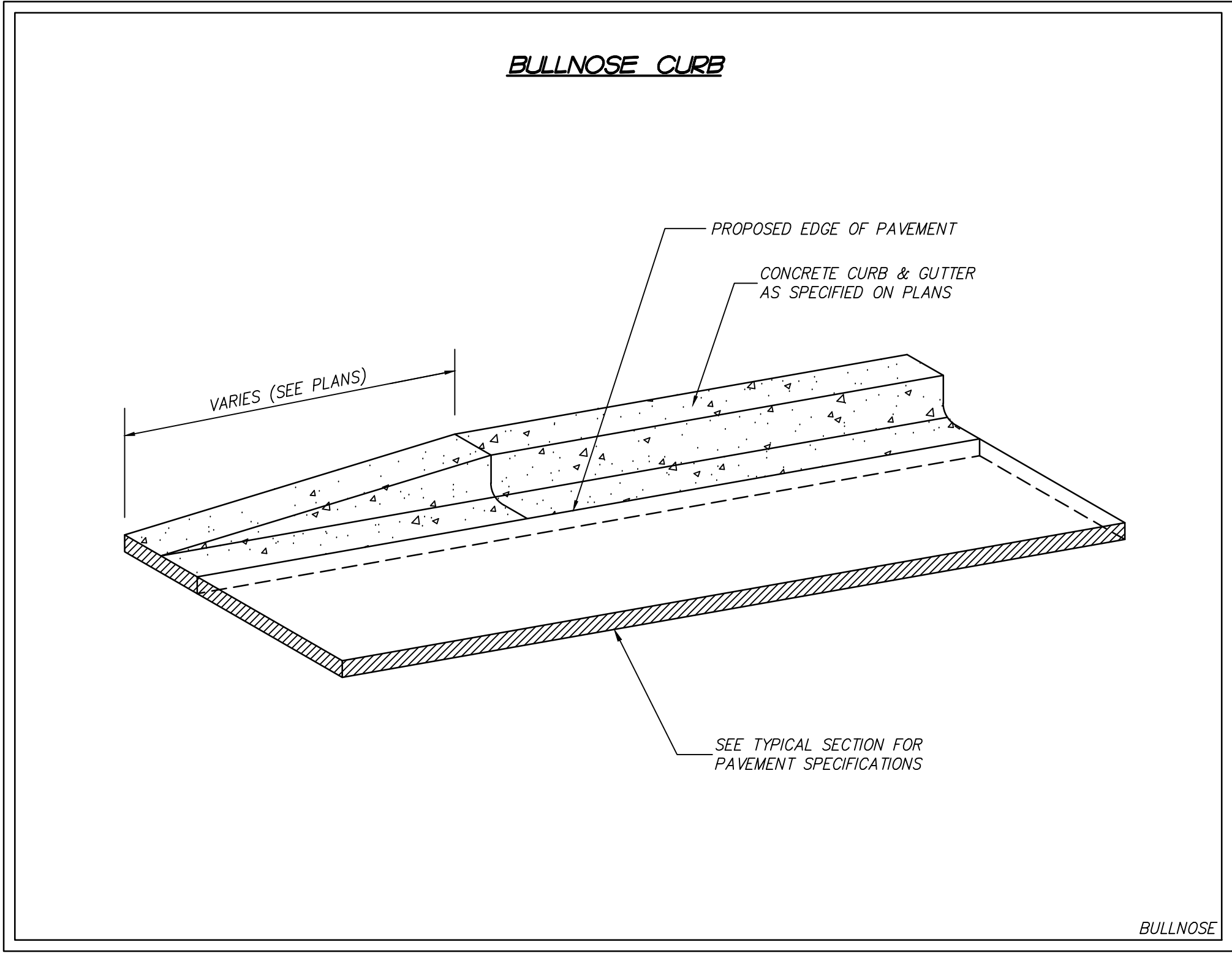


SHAH CENTER PARKING LOT  
RESURFACING  
McHENRY, ILLINOIS

CIVIL  
STANDARD CONSTRUCTION DETAILS

SHEET NO.  
C.09





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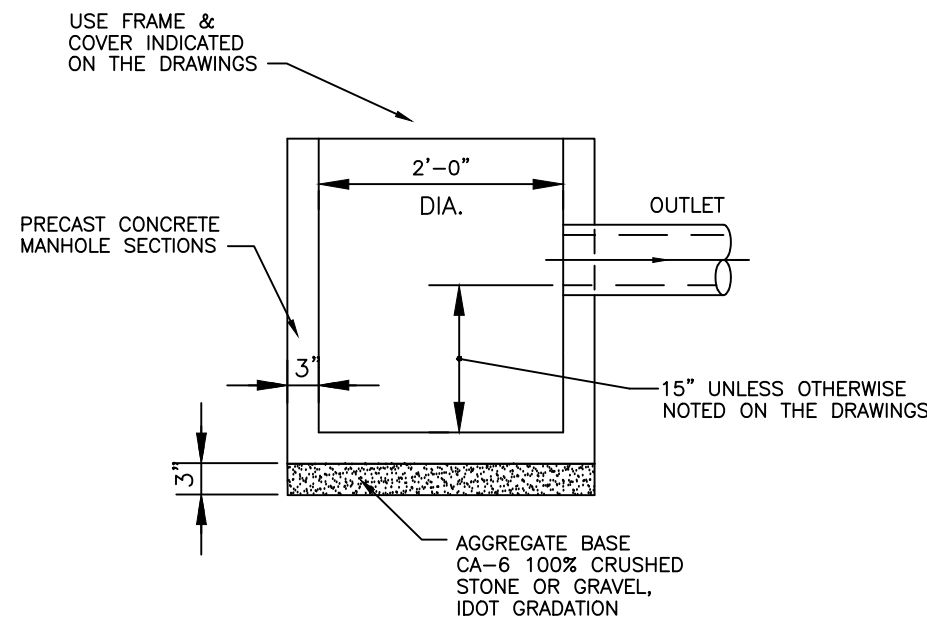
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 RESURFACING  
 McHENRY, ILLINOIS

CIVIL  
 STANDARD CONSTRUCTION DETAILS

SHEET NO.  
 C.10



H-3



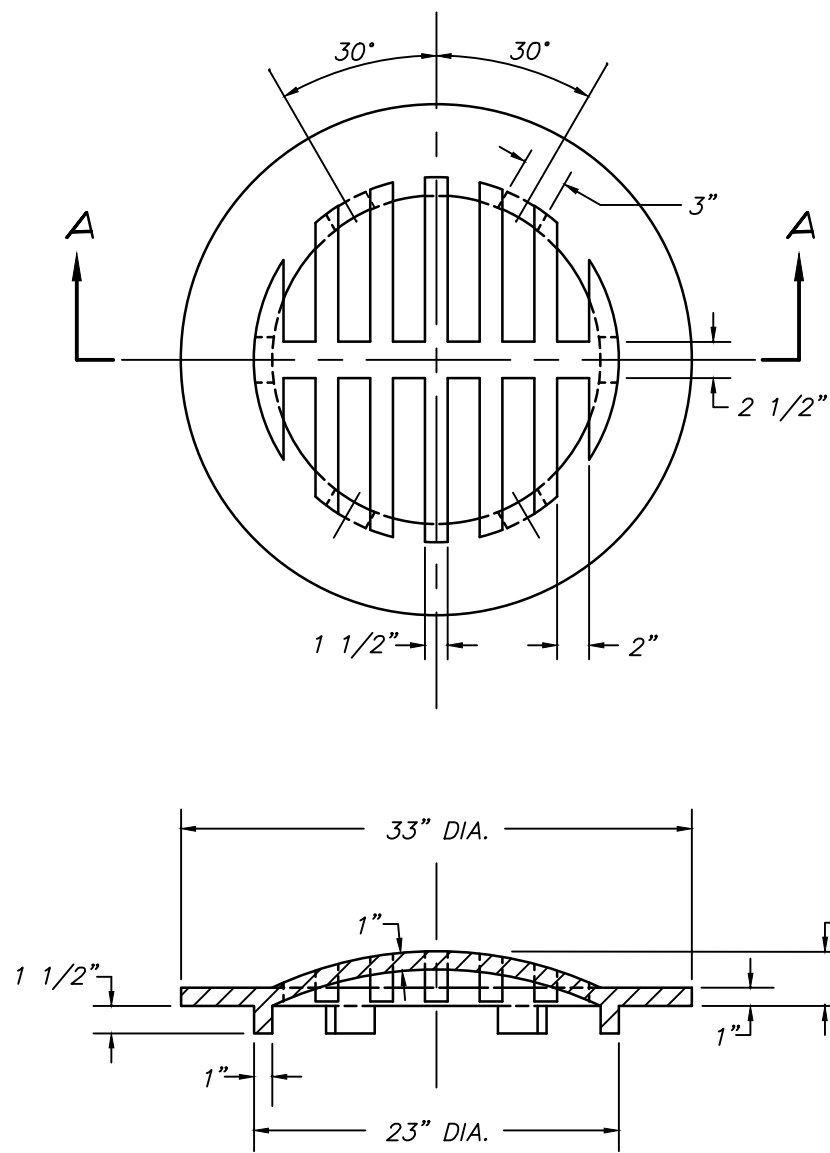
NOTE: IT IS RECOMMENDED THAT THE USER OF THIS DETAIL REFER TO THE CITY OF McHENRY SUBDIVISION CONTROL ORDINANCE FOR MORE DETAILED AND MORE SPECIFIC REQUIREMENTS.

CATCH BASIN  
TYPE C

CITY OF  
McHENRY, ILLINOIS

REVISIONS	DATE
FINAL	6-22-07

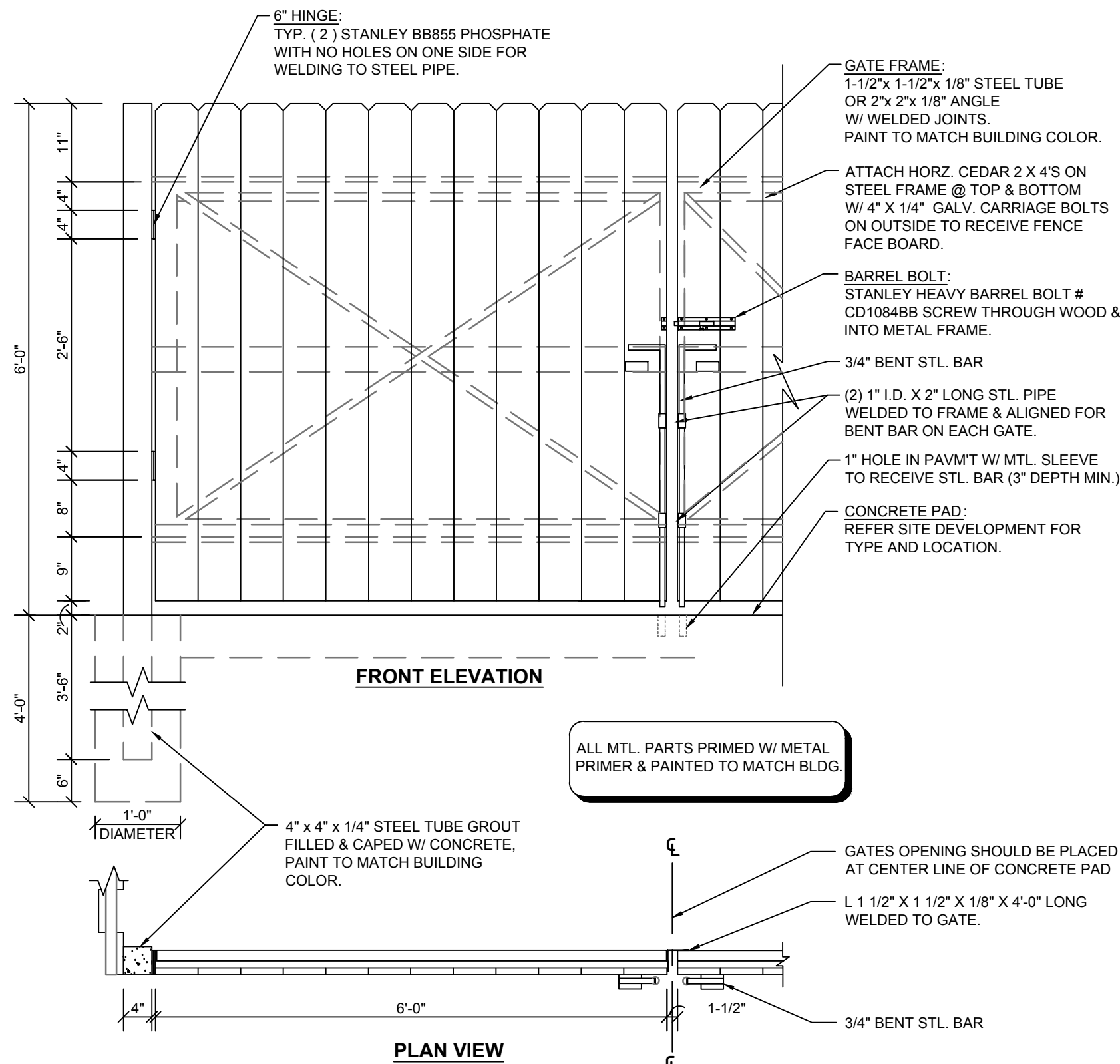
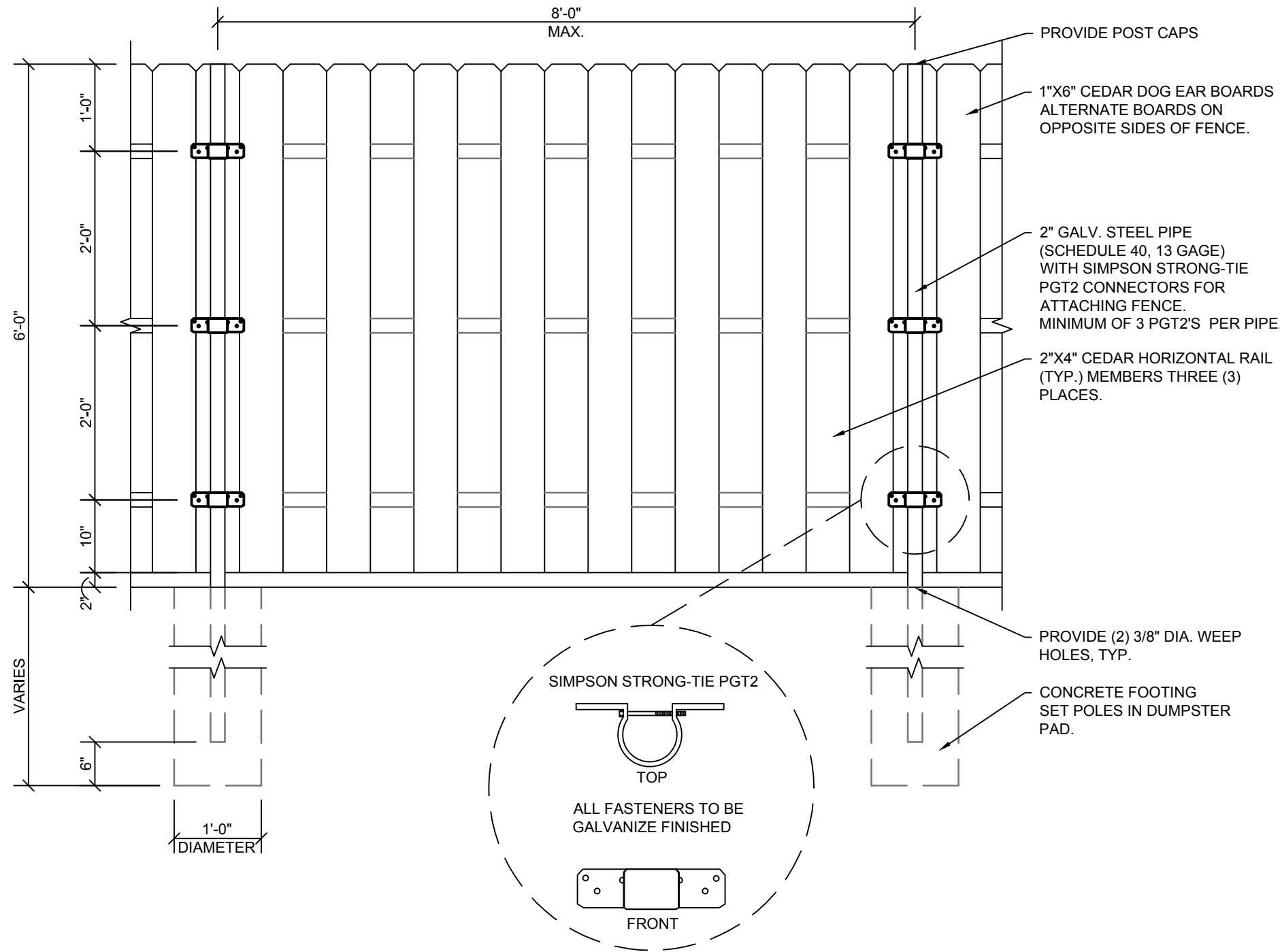
### GRATE TYPE B



### SECTION A-A

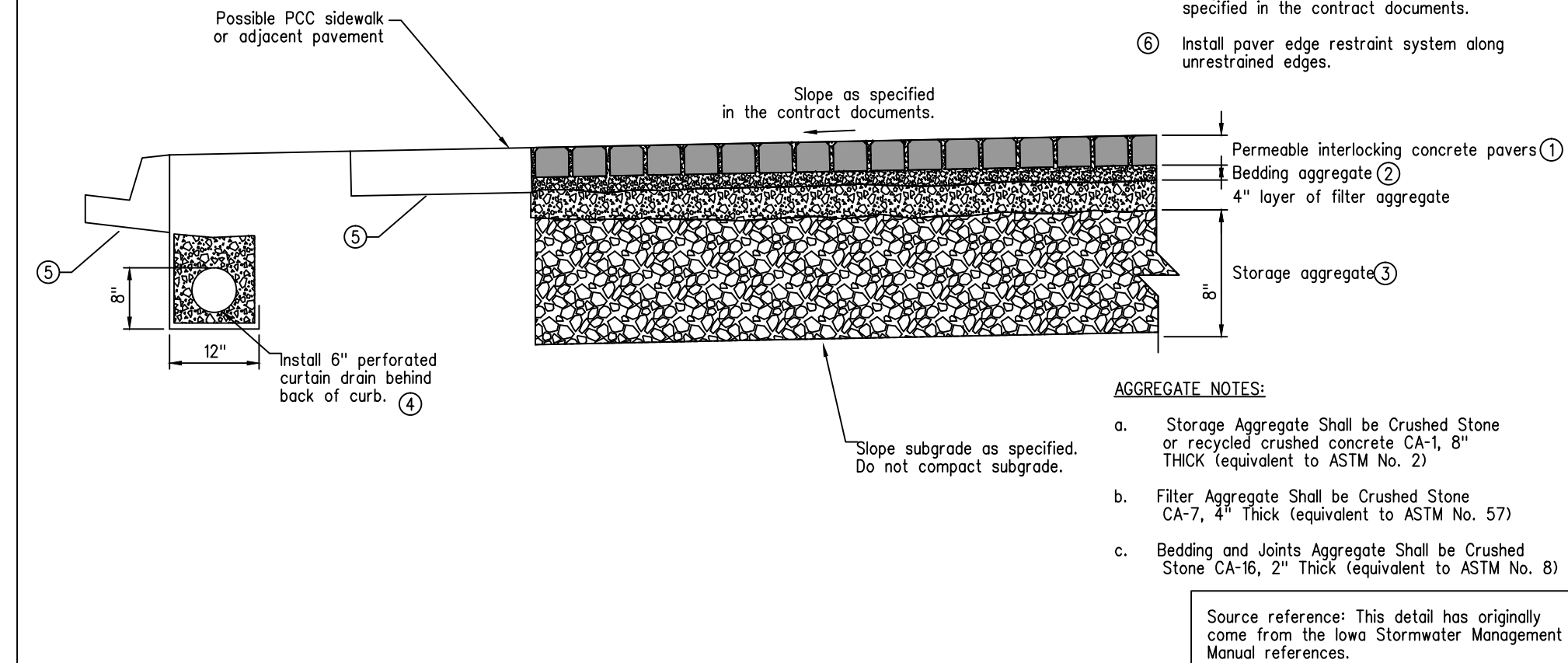
The cast grate may be made of either  
Gray Iron or Ductile Iron conforming to  
the Standard Specifications. Ductile Iron  
Casting, shall be Grade 65-45-12.

GRATE B



FOR BID

### PERMEABLE INTERLOCKING CONCRETE PAVERS (Option #3) (BID ALTERNATE)



#### GENERAL NOTES:

Refer to the manufacture recommendations for installation documents for dimensions, grades, and additional requirements for permeable interlocking concrete pavers and associated improvements.

- ① Permeable interlocking concrete pavers as specified in the contract documents.
- ② 1 1/2" to 2" permeable pavement bedding aggregate to accommodate imperfections in the permeable pavement filter aggregate layer.
- ③ Permeable pavement storage aggregate thickness as specified in the contract documents.
- ④ Install 6" perforated curtain drain behind back of curb.
- ⑤ Subgrade and/or subbase under pavement as specified in the contract documents.
- ⑥ Install paver edge restraint system along unrestrained edges.

#### AGGREGATE NOTES:

- a. Storage Aggregate Shall be Crushed Stone or recycled crushed concrete CA-1, 8" Thick (equivalent to ASTM No. 2)
- b. Filter Aggregate Shall be Crushed Stone CA-7, 4" Thick (equivalent to ASTM No. 57)
- c. Bedding and Joints Aggregate Shall be Crushed Stone CA-16, 2" Thick (equivalent to ASTM No. 8)

Source reference: This detail has originally come from the Iowa Stormwater Management Manual references.

BID ALTERNATE

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SHAH CENTER PARKING LOT  
RESURFACING  
McHENRY, ILLINOIS

CIVIL  
STANDARD CONSTRUCTION DETAILS

SHEET NO.

C.11



MCHENRY COUNTY COLLEGE - SHAH CENTER							
February 12, 2015							
TREE SURVEY							
TAG #	DBH* (INCHES)	SCIENTIFIC NAME	COMMON NAME	AGE**	CONDITION***	ACTION	REASON
1	9.4	CRATAEGUS PHAENOPYRUM	WASHINGTON HAWTHORN	S	A	REMOVE	THINNING OUT TREE COVER
2	7.4	BETULA POPULIFOLIA	GRAY BIRCH	S	A	REMOVE	IN PROPOSED PAVEMENT
3	16.0	PINUS RESINOSA	RED PINE	M	B	REMOVE	IN PROPOSED PAVEMENT
4	25.5	ACER SACCHARINUM	SILVER MAPLE	M	C	REMOVE	PART OF RIGHT-OF-WAY TAKING
5	14.0	ACER SACCHARINUM	SILVER MAPLE	S	B	REMOVE	PART OF RIGHT-OF-WAY TAKING
KEY							
* Totaled all stems over 4" for total DBH of multi-stemmed trees							
** Age:							
Semi-mature (young trees over 5 m high) - S							
Mature (approximately 40-50 years old) - M							
Over-mature (die-back of branches, dead wood, etc.) - O							
*** Condition:							
A - Good							
B - Fair							
C - Poor							
D - Dead							

- TREE PROTECTION KEY
- EXIST. TREE TO BE PRESERVED
- EXIST. TREE TO BE REMOVED
- TRUNK PROTECTIVE FENCING
- CRITICAL ROOT ZONE

TOTAL QUANTITIES (IN VICINITY OF DISTURBANCE AND PROPOSED IMPROVEMENTS)

EXIST. TREES TO BE PRESERVED	42
EXIST. TREES TO BE REMOVED	5
TOTAL EXISTING TREES TAGGED	47
EXIST. SHRUBS TO BE PRESERVED	13
EXIST. SHRUBS TO BE REMOVED	47
TOTAL EXISTING SHRUBS TAGGED	60

GENERAL NOTES

- THE INTENT IS TO KEEP THE EXISTING TREES TO BE PRESERVED IN TACT THROUGHOUT THE DURATION OF CONSTRUCTION ON-SITE. IF THE TREES ARE DAMAGED DURING CONSTRUCTION, THE CONTRACTOR IS RESPONSIBLE FOR REPLACING PER THE MUNICIPALITY'S ORDINANCE.
- CONTRACTOR IS RESPONSIBLE FOR THE HAUL-OFF OF ALL TREES & SHRUBS TO BE REMOVED.

THESE TREES ARE SUBJECT TO THE FOLLOWING TREE REPLACE SCHEDULE: FIVE PERCENT OF THE TOTAL DIAMETER AT BREAST HEIGHT(DBH) WILL BE REQUIRED AS COMPENSATION FOR REMOVAL - SILVER MAPLE.  
2 SILVER MAPLES REMOVED TOTAL

$25.5" + 14.0" = 39.5" \times .05 = 1.98 \approx 2"$  OF TOTAL REPLACEMENT TREES (1 REPLACEMENT TREE REQUIRED)

TREES REMOVED, WHETHER OR NOT DUE TO CONSTRUCTION, SITE DEVELOPMENT OR SUBDIVISION OF LAND, SHALL BE REPLACED ACCORDING TO THE FOLLOWING SCHEDULE:

CALIPER (IN INCHES DBH)	# OF REPLACEMENT TREES
30" OR GREATER	3
18" - 29"	2
6"-17"	1

3 TREES REMOVED (6"-17") = 3 REPLACEMENT TREES REQUIRED  
SILVER MAPLES REMOVED = 1 REPLACEMENT TREES REQUIRED  
4 REPLACEMENT TREES REQUIRED

MATERIAL TREES	REQUIRED	PROVIDED
	4	5

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SHAH CENTER PARKING LOT  
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LANDSCAPE  
TREE PRESERVATION PLAN

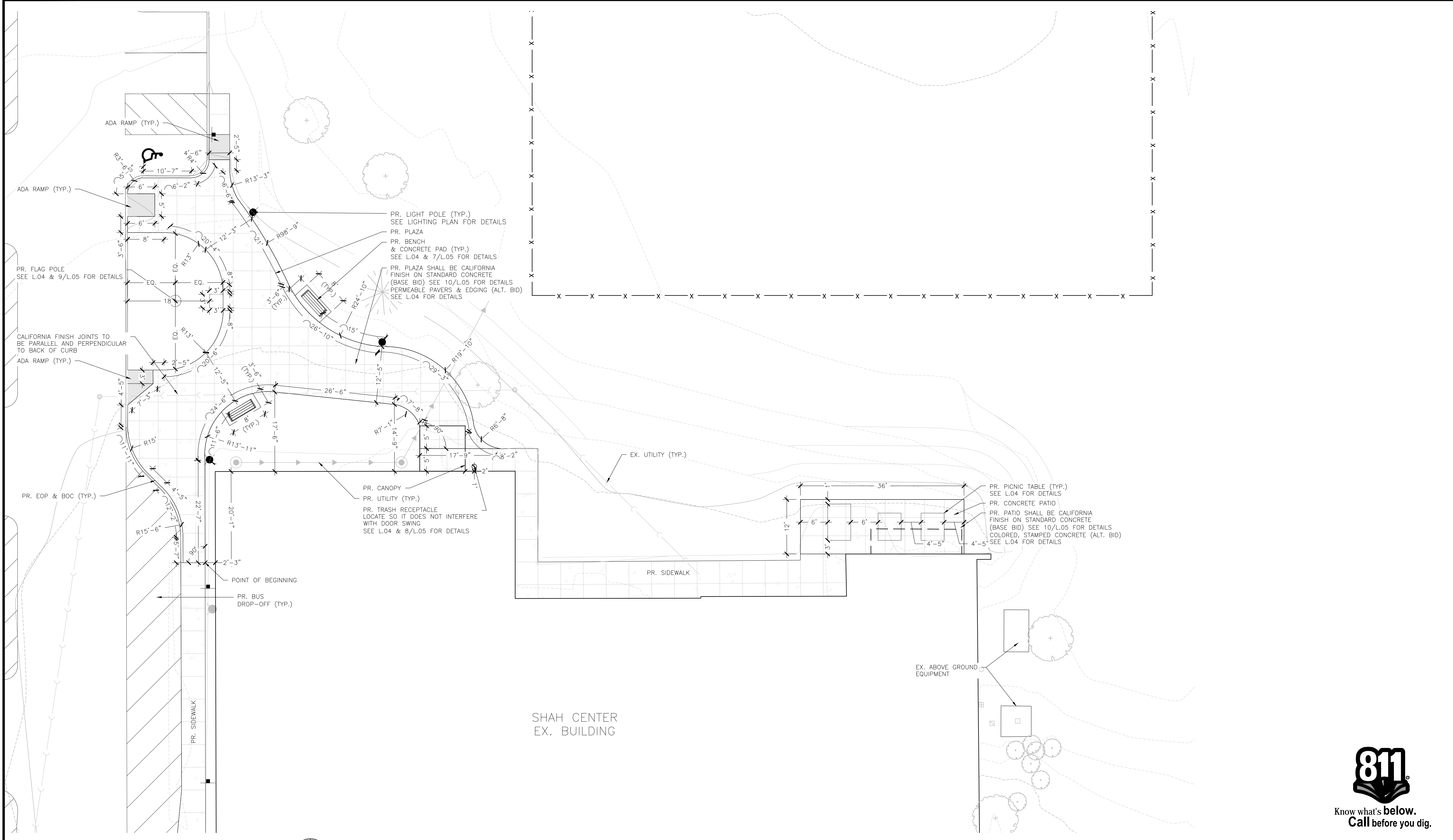
SHEET NO.  
L.01



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1 PLAN  
SCALE: 1" = 10'-0"




SHAH CENTER  
EX. BUILDING



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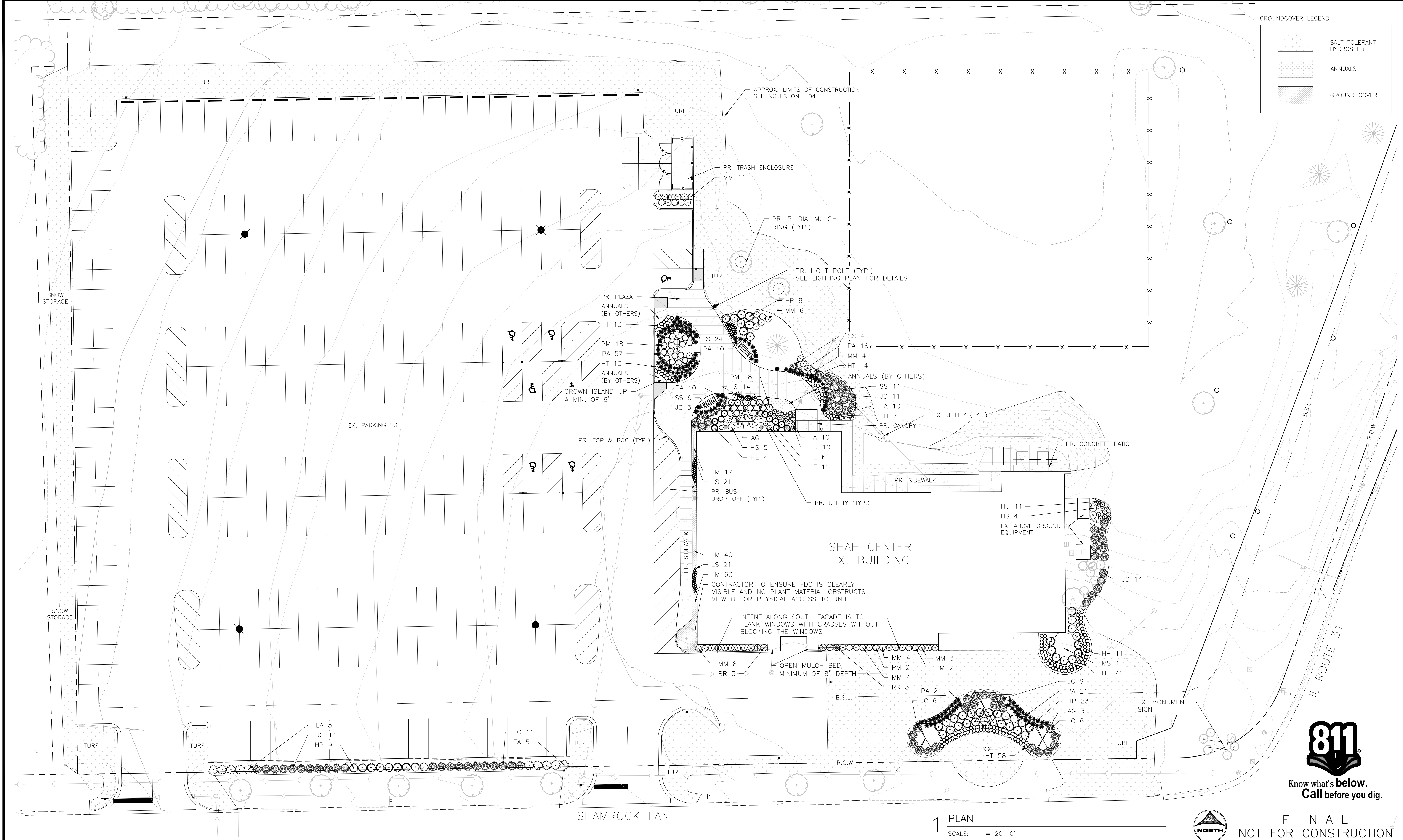
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SHAH CENTER PARKING LOT  
RESURFACING  
McHENRY, ILLINOIS

LANDSCAPE  
LAYOUT & DIMENSIONING PLAN

SHEET NO.  
L.02





GROUNDCOVER LEGEND

[Symbol]	SALT TOLERANT HYDROSEED
[Symbol]	ANNUALS
[Symbol]	GROUND COVER



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1 PLAN  
SCALE: 1" = 20'-0"

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SHAH CENTER PARKING LOT  
RESURFACING  
McHENRY, ILLINOIS

LANDSCAPE  
LANDSCAPE PLAN

SHEET NO.  
L.03



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MCHENRY COUNTY COLLEGE - SHAH CENTER						
February 12, 2015						
MATERIALS SCHEDULE						
QTY	KEY	BOTANICAL NAME/ITEM	COMMON NAME	SIZE	COND	REMARKS
DECIDUOUS TREES						
4	AG	AMELANCHIER X GRANDIFLORA 'AUTUMN BRILLIANCE'	APPLE SERVICEBERRY	2" CAL.	B&B	MULTI-STEMMED; MATCHED
1	MS	MAGNOLIA STELLATA 'ROYAL STAR'	STAR MAGNOLIA	2" CAL.	B&B	MULTI-STEMMED; MATCHED
DECIDUOUS SHRUBS						
10	EA	EUONYMUS ALATUS 'RUDY HAAG'	DWARF BURNING BUSH	#5	CONT.	SPACE 48" O.C.; MATCHED
51	HP	HYDRANGEA PANICULATA 'JANE'	LITTLE LIME HYDRANGEA	#3B	CONT.	SPACE 48" O.C.; MATCHED
6	RR	ROSA 'RADTKO'	DOUBLE KNOCKOUT ROSE	#3B	CONT.	SPACE 36" O.C.; MATCHED
EVERGREEN SHRUBS						
71	JC	JUNIPERUS CHINENSIS 'GOLD LACE'	JUNIPER	#5	CONT.	SPACE 48" O.C.; MATCHED
40	PM	PINUS MUGO 'AUREA'	GOLDEN MUGO PINE	#5	CONT.	SPACE 36" O.C.; MATCHED
PERENNIALS, GRASSES & GROUNDCOVERS						
20	HA	HOSTA 'APPLETINI'	HOSTA	1 CELL	CONT.	SPACE 18" O.C. / 1 CELL OF 12D FLAT; MATCHED
10	HE	HOSTA 'ELEGANS'	HOSTA	#1	CONT.	SPACE 36" O.C.; MATCHED
11	HF	HOSTA 'FRANCES WILLIAMS'	HOSTA	#1	CONT.	SPACE 30" O.C.; MATCHED
7	HH	HOSTA 'HALCYON'	HOSTA	#1	CONT.	SPACE 24" O.C.; MATCHED
9	HS	HOSTA 'SUM AND SUBSTANCE'	HOSTA	#3S	CONT.	SPACE 36" O.C.; MATCHED
172	HT	HEMEROCALLIS 'STELLA DE ORO'	DAYLILY	#1	CONT.	SPACE 18" O.C.; MATCHED
21	HU	HOSTA 'JUNE'	HOSTA	#1	CONT.	SPACE 24" O.C.; MATCHED
120	LM	LIRIOPE MUSCARI 'VARIEGATA'	VARIEGATED LILYTURF	1 CELL	CONT.	SPACE 18" O.C. / 1 CELL OF 12 FLAT; MATCHED
80	LS	LIATRIS SPICATA 'KOBOLD'	GAYFEATHER	#1	CONT.	SPACE 12" O.C.; MATCHED
40	MM	MISCANTHUS SINENSIS 'MORNING LIGHT'	SILVER MAIDEN GRASS	#3	CONT.	SPACE 36" O.C.; MATCHED
135	PA	PENNISETUM ALOPECUROIDES 'HAMELN'	FOUNTAIN GRASS	#1	CONT.	SPACE 24" O.C.; MATCHED
24	SS	SCHIZACHYRIUM SCOPARIUM 'CAROUSEL'	LITTLE BLUESTEM	#1	CONT.	SPACE 24" O.C.; MATCHED
MISCELLANEOUS						
63	MULCH	3" DEEP SHREDDED HARDWOOD MULCH		CY		
2,715	SEED	SALT TOLERANT HYDROSEED		SY		


MCHENRY COUNTY COLLEGE - SHAH CENTER					
February 12, 2015					
FURNISHINGS SCHEDULE - BASE BID					
QTY	ITEM	MANUFACTURER & MODEL	MATERIAL & FINISH	CONTACT INFORMATION	REMARKS
2	BENCH	DUMOR, INC. 193-60 6' LONG STEEL BENCH WITHOUT BACKREST & 2 SUPPORTS	SLATS: BLACK POWDERCOAT FRAME: BLACK POWDERCOAT	MANUFACTURER: DUMOR, INC. (800) 598-4018 LOCAL REP: NUTOYS LEISURE PRODUCTS (708) 579-9055	SURFACE MOUNT SEE MANUFACTURER'S SPECIFICATIONS AND DETAILS FOR RECOMMENDATIONS
2	PICNIC TABLE	PERENNIAL PARK PRODUCTS BY ENGINEERD PLASTIC SYSTEMS, LLC #SPT6 STANDARD TABLE (6')	SLATS: WEATHERED WOOD WITH WOOD GRAIN FACING UP FRAME: STEEL WITH BLACK POWDERCOAT	MANUFACTURER: ENGINEERED PLASTIC SYSTEMS, LLC (800) 480-2327 LOCAL REP: N/A	SURFACE MOUNT SEE MANUFACTURER'S SPECIFICATIONS AND DETAILS FOR RECOMMENDATIONS
1	ACCESSIBLE PICNIC TABLE	PERENNIAL PARK PRODUCTS BY ENGINEERD PLASTIC SYSTEMS, LLC #SPT8-H1 STANDARD TABLE WITH SINGLE OVERHANG	SLATS: WEATHERED WOOD WITH WOOD GRAIN FACING UP FRAME: STEEL WITH BLACK POWDERCOAT	MANUFACTURER: ENGINEERED PLASTIC SYSTEMS, LLC (800) 480-2327 LOCAL REP: N/A	SURFACE MOUNT SEE MANUFACTURER'S SPECIFICATIONS AND DETAILS FOR RECOMMENDATIONS
1	FLAG POLE	SPORTSPLAY EQUIPMENT, INC. 801-114 25' FLAGPOLE (DOES NOT INCLUDE FLAG)	STEEL WITH FLOCOAT GALVANIZED, TRIPLE COAT PROTECTION	MANUFACTURER: SPORTSPLAY EQUIPMENT, INC. (314) 389-4140 LOCAL REP: NUTOYS LEISURE PRODUCTS (708) 579-9055	SURFACE MOUNT SEE MANUFACTURER'S SPECIFICATIONS AND DETAILS FOR RECOMMENDATIONS
1	TRASH RECEPACLE	DUMOR, INC. 64-057 STEEL RECEPACLE (WITHOUT ASH TRAY TOP)	FRAME: BLACK POWDERCOAT	MANUFACTURER: DUMOR, INC. (800) 598-4018 LOCAL REP: NUTOYS LEISURE PRODUCTS (708) 579-9055	SURFACE MOUNT SEE MANUFACTURER'S SPECIFICATIONS AND DETAILS FOR RECOMMENDATIONS
MCHENRY COUNTY COLLEGE - SHAH CENTER					
February 12, 2015					
FURNISHINGS SCHEDULE - ALTERNATE BID					
QTY	ITEM	MANUFACTURER & MODEL	MATERIAL & FINISH	CONTACT INFORMATION	REMARKS
2010 SF	PAVER FIELD	UNILOCK THORNBURY PERMEABLE PAVERS IN PATTERN 'A' SEE THORNBURY SPEC FOR BREAKDOWN OF PAVER SIZES USED IN THIS PATTERN	PAVER COLOR: TO BE SELECTED & APPROVED BY OWNER SAND COLOR: TO BE SELECTED & APPROVED BY OWNER	MANUFACTURER: UNILOCK (800) UNI-LOCK LOCAL REP: PHIL CARLSON (630) 201-5074	SEE MANUFACTURER'S SPECIFICATIONS AND DETAILS FOR RECOMMENDATIONS
228 LF	PAVER EDGING	PERMALOC GEOEDGE IN 8" SECTIONS 4" x 3.25" (WALL x BASE)	COLOR: BLACK DURAFLEX FINISH	MANUFACTURER: PERMALOC (800) 356-9660 LOCAL REP: N/A	SEE MANUFACTURER'S SPECIFICATIONS AND DETAILS FOR RECOMMENDATIONS
48 SY	COLORLED STAMPED CONCRETE	BUTTERFIELD COLOR	COLOR: TO BE SELECTED & APPROVED BY OWNER STAMP: TO BE SELECTED & APPROVED BY OWNER	MANUFACTURER: BUTTERFIELD COLOR (630) 906-1980 LOCAL REP: N/A	SEE MANUFACTURER'S SPECIFICATIONS AND DETAILS FOR RECOMMENDATIONS
*PROVIDE LISTED MODELS OR APPROVED EQUALS					

ALTERNATE BID DESIGN NOTES

- PAVER EDGER TO BE GEOEDGE BY PERMALOC OR APPROVED EQUAL. CONTRACTOR TO SUBMIT SHOP DRAWINGS AND SAMPLES OF PAVER EDGER TO OWNER'S REPRESENTATIVE FOR REVIEW PRIOR TO INSTALLATION. INSTALL PER MANUFACTURER'S RECOMMENDATIONS AND SPECIFICATIONS ONLY IN LOCATIONS WHERE PAVERS DO NOT ABUT CONCRETE CURBS, SIDEWALKS OR RAMPS.
- CONTRACTOR TO VERIFY THAT PAVERS WILL FIT AREAS DESIGNATED IN DETAILS. PRIOR TO INSTALLATION, CONTRACTOR SHALL MOCK UP A 6' X 6' SECTION OF PAVERS TO ENSURE CORRECT TOLERANCE FOR SPACERS AND JOINTS. OWNER SHALL REVIEW AND APPROVE PRIOR TO INSTALLATION. CUTTING OF THE PAVERS AND SAND FOR JOINTS IS INCIDENTAL TO THE PROJECT.
- CONTRACTOR TO PROVIDE SHOP DRAWINGS OF PAVER PATTERN LAYOUTS TO LANDSCAPE ARCHITECT FOR REVIEW PRIOR TO INSTALLATION.
- CONTRACTOR SHALL MOCK UP A 6' X 6' SECTION OF THE DECORATIVE CONCRETE PAVING TO DEMONSTRATE THE FINISH, COLOR AND TEXTURE. OWNER SHALL REVIEW AND APPROVE PRIOR TO INSTALLATION.
- CONTRACTOR TO GET OWNER'S SELECTION AND FINAL APPROVAL ON PAVER COLOR AND STAMPED CONCRETE COLOR AND STAMP PATTERN PRIOR TO ORDERING AND INSTALLATION.

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	ILLINOIS DESIGN FIRM # 184.001322
	420 N. FRONT STREET, SUITE 100 McHENRY, ILLINOIS 60050
	PHONE: 815.385.1778   TOLL FREE: 800.728.7805 FAX: 815.385.1781   HRGreen.com



SHAH CENTER PARKING LOT RESURFACING McHENRY, ILLINOIS
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LANDSCAPE LANDSCAPE NOTES
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SHEET NO. L.04
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GENERAL NOTES

- BASE MAP INFORMATION IS ACCURATE AS OF THE DATE PRINTED ON THIS PACKAGE.
- THE LANDSCAPE PLANS CONTAINED HEREIN ILLUSTRATE APPROXIMATE LOCATIONS OF ALL SITE CONDITIONS. REFER TO SURVEY, ARCHITECTURAL, CIVIL ENGINEERING, STRUCTURAL, ELECTRICAL, IRRIGATION AND ALL OTHER DRAWINGS, IF AVAILABLE, FOR ADDITIONAL DETAILED INFORMATION.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR BECOMING AWARE OF AND FIELD VERIFYING ALL RELATED EXISTING AND PROPOSED CONDITIONS, UTILITIES, PIPES AND STRUCTURES, ETC. PRIOR TO BIDDING AND CONSTRUCTION. THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR CONTACTING J.U.L.I.E., THE COUNTY PUBLIC WORKS DEPARTMENT, THE MUNICIPALITY AND ANY OTHER PUBLIC OR PRIVATE AGENCIES NECESSARY FOR UTILITY LOCATION PRIOR TO ANY CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY THE OWNER'S REPRESENTATIVE OF APPARENT CONFLICTS WITH CONSTRUCTION AND UTILITIES SO THAT ADJUSTMENTS CAN BE PLANNED PRIOR TO INSTALLATION. IF FIELD ADJUSTMENTS ARE NECESSARY DUE TO EXISTING UTILITY LOCATIONS THEY MUST BE APPROVED BY THE OWNER'S REPRESENTATIVE. THE CONTRACTOR SHALL TAKE SOLE RESPONSIBILITY FOR ANY AND ALL COSTS OR OTHER LIABILITIES INCURRED DUE TO DAMAGE OF SAID UTILITIES/STRUCTURES/ETC.
- THE CONTRACTOR SHALL VERIFY ALL SITE CONDITIONS. THE CONTRACTOR SHALL NOT WILLFULLY PROCEED WITH CONSTRUCTION AS DESIGNED WHEN IT IS APPARENT THAT UNKNOWN OBSTRUCTIONS AND/OR GRADE DIFFERENCES EXIST THAT MAY NOT HAVE BEEN KNOWN DURING DESIGN. SUCH CONDITIONS SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE OWNER'S REPRESENTATIVE FOR CLARIFICATION. THE CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR ALL LIABILITIES, INCLUDING NECESSARY REVISIONS DUE TO FAILURE TO GIVE SUCH NOTIFICATION.
- THE CONTRACTOR SHALL COMPLY WITH ALL CODES APPLICABLE TO THIS WORK.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION WITH SUBCONTRACTORS AND OTHER CONTRACTORS OF RELATED TRADES, AS REQUIRED, TO ACCOMPLISH THE PLANTING AND RELATED OPERATIONS.
- THE CONTRACTOR SHALL COORDINATE INSTALLATION OF ALL PLANT MATERIAL WITH THE INSTALLATION OF OTHER IMPROVEMENTS SUCH AS HARDSCAPE ELEMENTS AND RELATED STRUCTURES. ANY DAMAGE TO EXISTING IMPROVEMENTS IS THE RESPONSIBILITY OF THE CONTRACTOR.
- THE CONTRACTOR IS RESPONSIBLE TO RESTORE ALL AREAS OF THE SITE, OR ADJACENT AREAS, WHERE DISTURBED BY OPERATIONS OF OR RELATED TO THE CONTRACTOR'S WORK.
- ALL SURFACE DRAINAGE SHALL BE DIVERTED AWAY FROM STRUCTURES AND NOTED SITE FEATURES IN ALL AREAS AT A MINIMUM OF 2% SLOPE AS SHOWN ON THE CIVIL ENGINEERING PLANS. ALL AREAS SHALL POSITIVELY DRAIN AND ALL ISLANDS SHALL BE CROWNED 1" IN HEIGHT PER 1' IN ISLAND WIDTH.
- THE CONTRACTOR SHALL STAKE ALL TREE LOCATIONS AND THE PERIMETER OF SHRUB/PERENNIAL BEDS PRIOR TO INSTALLATION AND CONTACT THE OWNER'S REPRESENTATIVE FOR APPROVAL. FINAL LOCATION AND STAKING OF ALL PLANT MATERIALS SHALL BE ACCEPTED BY THE OWNER'S REPRESENTATIVE IN ADVANCE OF PLANTING.
- IF CONFLICTS ARISE BETWEEN THE SIZE OF AREAS AND PLANS, THE CONTRACTOR IS REQUIRED TO CONTACT THE OWNER'S REPRESENTATIVE FOR RESOLUTION PRIOR TO INSTALLATION.
- WHERE PROVIDED, AREA TAKEOFFS AND PLANT QUANTITY ESTIMATES IN THE PLANT LIST ARE FOR INFORMATION ONLY. THE CONTRACTOR IS RESPONSIBLE TO DO THEIR OWN QUANTITY TAKE-OFFS FOR ALL PLANT MATERIALS AND SIZES SHOWN ON PLANS. IN CASE OF ANY DISCREPANCIES, PLANS TAKE PRECEDENCE OVER CALL-OUTS AND/OR THE PLANT LIST(S).
- ALL PLANTS SHALL BE NURSERY GROWN PLANTS MEETING AMERICAN NURSERY AND LANDSCAPE ASSOCIATION (ANLA) STANDARDS SET FORTH IN THE "AMERICAN STANDARD FOR NURSERY STOCK" (ANSI Z60.1-2004). PLANTS ARE TO BE TYPICAL IN SHAPE AND SIZE FOR SPECIES. PLANTS PLANTED IN ROWS OR GROUPS SHALL BE MATCHED IN FORM. PLANTS SHALL NOT BE ROOT-BOUND OR LOOSE IN THEIR CONTAINERS. HANDLE ALL PLANTS WITH CARE IN TRANSPORTING, PLANTING AND MAINTENANCE UNTIL INSPECTION AND FINAL ACCEPTANCE. FIELD COLLECTED MATERIAL SHALL NOT BE USED UNLESS APPROVED BY THE OWNER'S REPRESENTATIVE.
- SHREDDED HARDWOOD MULCH, FERTILIZING, AS SPECIFIED, STAKING, WATERING AND ONE (1) YEAR PLANT WARRANTY FOR INSTALLED PLANT MATERIAL, SHALL BE CONSIDERED INCIDENTAL TO THE PLANT ITEMS.
- MUSHROOM COMPOST SHALL BE FINELY SCREENED, HOMOGENOUS, DECOMPOSED ORGANIC MATERIAL SUITABLE FOR HORTICULTURAL USE AS AVAILABLE FROM MIDWEST TRADING HORTICULTURAL SUPPLIES, INC. ST. CHARLES, IL 60174 (630) 365-1990 OR APPROVED EQUAL. MIX THOROUGHLY IN PLANT BED BEFORE INSTALLING PLANTS.
- WARRANTY: ONE (1) YEAR REPLACEMENT WARRANTY FOR ALL PLANT MATERIALS SHALL BE CONSIDERED INCIDENTAL TO THIS PROJECT. WARRANTY SHALL COVER PLANTS WHICH HAVE DIED OR PARTIALLY DIED (THEREBY RUINING THEIR NATURAL SHAPE), BUT SHALL NOT INCLUDE DAMAGE BY VANDALISM, BROWSING, HAIL, ABNORMAL FREEZES, DROUGHT OR NEGLIGENCE BY THE OWNER. THE WARRANTY IS INTENDED TO COVER CONTRACTOR NEGLIGENCE, INFESTATIONS, DISEASE AND DAMAGE OR SHOCK TO PLANTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING AND WATERING THE PLANT MATERIAL AS NECESSARY, TO ENSURE GROWTH AND ESTABLISHMENT DURING THE 1-YEAR WARRANTY PERIOD. ANY PLANTS THAT ARE NOT IN A LIVE, HEALTHY, GROWING CONDITION AT THE END OF THE 1-YEAR WARRANTY PERIOD SHALL BE REPLACED BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE. PLANTS REPLACED UNDER WARRANTY WILL BE WARRANTED FOR ONE (1) YEAR FOLLOWING REPLACEMENT.

GENERAL NOTES – SPECIAL REQUIREMENTS– WARRANTY AND MAINTENANCE OF SODDED AND SEEDDED AREAS

- MOWING, TRIMMING AND REMOVAL OF GRASS CLIPPINGS IN TURF AREAS, DURING INITIAL 60 DAYS, SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. DURING THIS TIME, CONTRACTOR SHALL MOW TURF AREAS AT REGULAR INTERVALS TO MAINTAIN AT A MAXIMUM HEIGHT OF 2-1/2 INCHES. DO NOT CUT MORE THAN 1/3 OF GRASS BLADE AT ANY ONE MOWING. CONTRACTOR SHALL ALSO NEATLY TRIM EDGES WHERE NECESSARY AND REMOVE CLIPPINGS AFTER MOWING AND TRIMMING.
- WARRANTY:
  - WARRANTY OF SEEDDED AND SODDED AREAS SHALL BE CONSIDERED INCIDENTAL TO THE BID ITEM.
  - THE WARRANTY IS TO GUARANTEE COMPLETED SEED/SOD AREAS FOR A PERIOD OF 1 YEAR AFTER INITIAL ACCEPTANCE HAS BEEN DOCUMENTED.
  - REPLACEMENT COSTS ARE THE CONTRACTOR'S RESPONSIBILITY, EXCEPT FOR THOSE RESULTING FROM LOSS OR DAMAGE DUE TO VANDALISM, CIVIL DISOBEDIENCE, ACTS OF NEGLIGENCE ON THE PART OF OTHERS, PHYSICAL DAMAGE BY ANIMALS, VEHICLES, FIRE, OR LOSSES DUE TO CURTAILMENT OF WATER BY LOCAL AUTHORITY, OR BY "ACTS OF GOD."
- MAINTENANCE:
  - CONTRACTOR SHALL COORDINATE MAINTENANCE OPERATIONS AND ACTIVITIES WITH THE OWNER DURING THE WARRANTY PERIOD.
  - MAINTENANCE OF SEED/SOD AREAS SHALL BE PERFORMED BY TRAINED PERSONNEL SKILLED IN IDENTIFYING DESIRED AND UNDESIRED PLANT MATERIAL.
  - CONTRACTOR WILL BE RESPONSIBLE FOR MAINTENANCE OF SEEDDED AND SOD AREAS DURING THE 1 YEAR WARRANTY PERIOD WITH THE EXCEPTION OF ROUTINE MOWING OF TURF AREAS. ROUTINE MOWING OF TURF AREAS, DURING THE 1 YEAR WARRANTY PERIOD, WILL BE THE RESPONSIBILITY OF THE OWNER ONCE INITIAL ACCEPTANCE HAS BEEN DOCUMENTED.
  - MAINTENANCE OF SEEDDED AND SOD AREAS SHALL INCLUDE:
    - WATERING TO PREVENT GRASS AND SOIL FROM DRYING OUT.
    - ROLLING THE SURFACE TO REMOVE MINOR DEPRESSIONS OR IRREGULARITIES.
    - CONTROLLING GROWTH OF WEEDS. APPLY HERBICIDES IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. REMEDY DAMAGE RESULTING FROM IMPROPER USE OF HERBICIDES.
    - PROTECTING SEEDDED/SOD AREAS WITH WARNING SIGNS DURING MAINTENANCE AND WARRANTY PERIOD AS DEEMED NECESSARY.
    - IN THE SPRING OF EACH YEAR DURING THE 1 YEAR WARRANTY PERIOD, THE CONTRACTOR SHALL CORRECT AND RESEED AS ORIGINALLY SPECIFIED, ANY DEFECTS IN THE SEEDDED/SOD AREAS AND GRASS STAND, SUCH AS WEEDY AREAS, ERODED AREAS, AND BARE SPOTS, UNTIL AFFECTED AREAS ARE ACCEPTABLE TO THE OWNER'S REPRESENTATIVE.
    - IN THE SPRING DURING THE 1 YEAR WARRANTY PERIOD, THE CONTRACTOR SHALL REPLACE OR REPAIR TO ORIGINAL CONDITION, ALL DAMAGES TO PROPERTY RESULTING FROM THE SEEDING/SODDING OPERATION OR FROM THE REMEDYING OF DEFECTS, AT THE CONTRACTOR'S EXPENSE.

SPECIAL REQUIREMENTS – MAINTENANCE

- BEGIN MAINTENANCE IMMEDIATELY FOLLOWING INSTALLATION OF SOD AND CONTINUE FOR A PERIOD UNTIL SODDED AREAS ARE ESTABLISHED WITH SOD ROOTED IN PLACE. MAINTENANCE PERIOD SHALL BE A MINIMUM OF 14 DAYS.
- MAINTENANCE OF SODDED AREAS SHALL INCLUDE WATERING, WEEDING, MOWING TO A 2 – 2 1/2 INCH HEIGHT AFTER HEIGHT HAS EXCEEDED 3 INCHES AND PRIOR TO 4 INCHES, AND REPLACEMENT AND INSTALLATION OF SOD AS ORIGINALLY SPECIFIED FOR SODDED AREAS FAILING TO SURVIVE. CLIPPINGS FROM MOWING WHICH MAT ON THE GRASS, ARE TO BE REMOVED.

SPECIAL REQUIREMENTS – WARRANTY

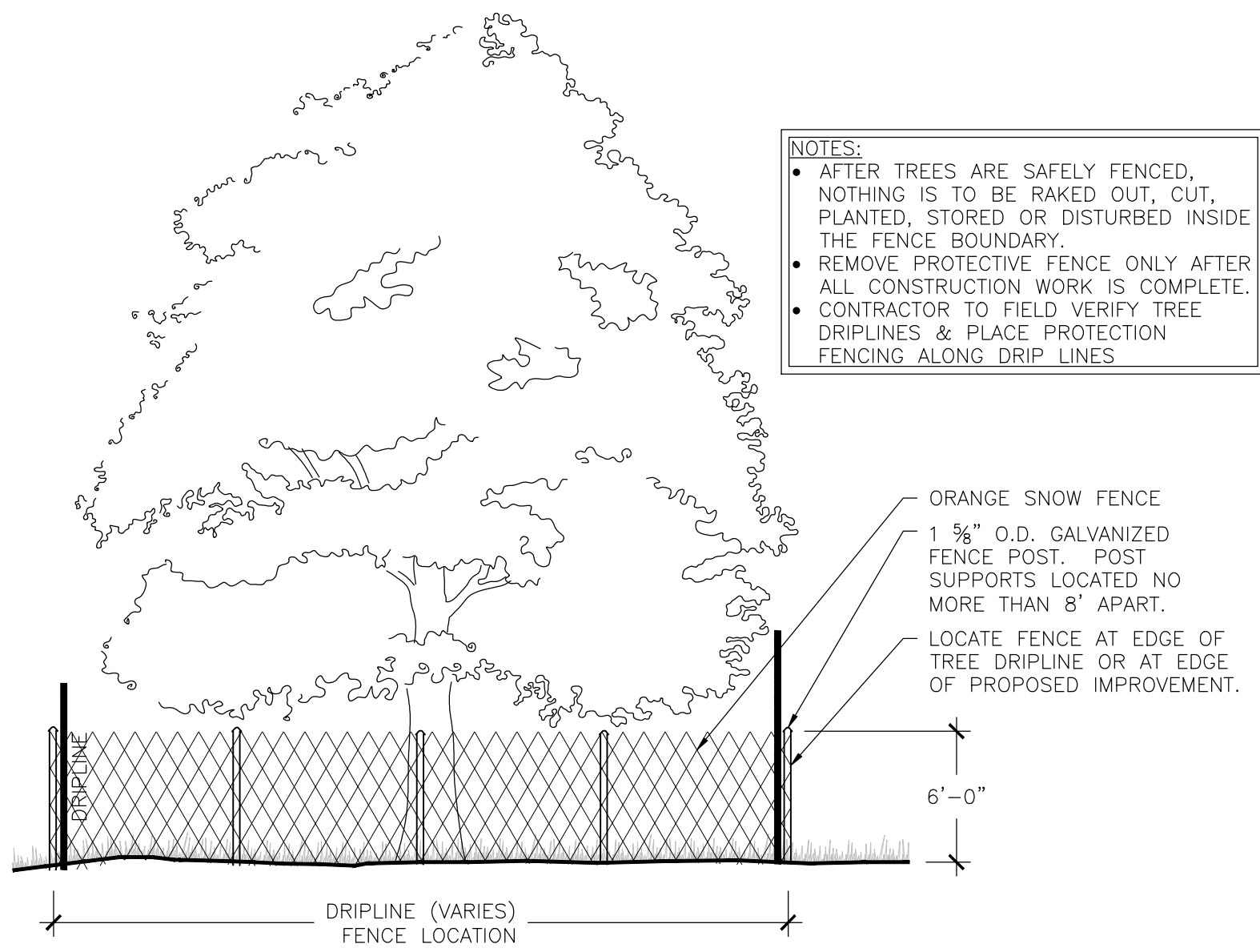
- A WARRANTY IS REQUIRED TO GUARANTEE COMPLETED SODDING OPERATIONS PROVIDING A UNIFORMLY DENSE, LIVE, AND HEALTHY STAND OF GRASS, FREE OF WEEDS AND UNDESIRABLE GRASSES, DEBRIS, AND FREE OF ERODED AREAS, BARE SPOTS, DISEASES, AND INSECTS AT THE END OF ONE YEARS FOLLOWING THE MINIMUM MAINTENANCE PERIOD OR PROJECT ACCEPTANCE, WHICHEVER IS MORE RECENT.
- CONTRACTOR TO REPLACE AS ORIGINALLY SPECIFIED AREAS THAT HAVE FAILED TO SURVIVE, AS OFTEN AS REQUIRED, TO ESTABLISH THE SODDED LAWN AREA UNTIL ACCEPTED; AT NO ADDITIONAL COMPENSATION.
- REPAIR AND REPLACE TO ORIGINAL CONDITION ALL DAMAGES TO PROPERTY RESULTANT FROM THE SODDING OPERATION AND ALL DAMAGES AS A RESULT FROM THE REMEDYING OF THESE DEFECTS, WITHOUT ADDITIONAL COMPENSATION.



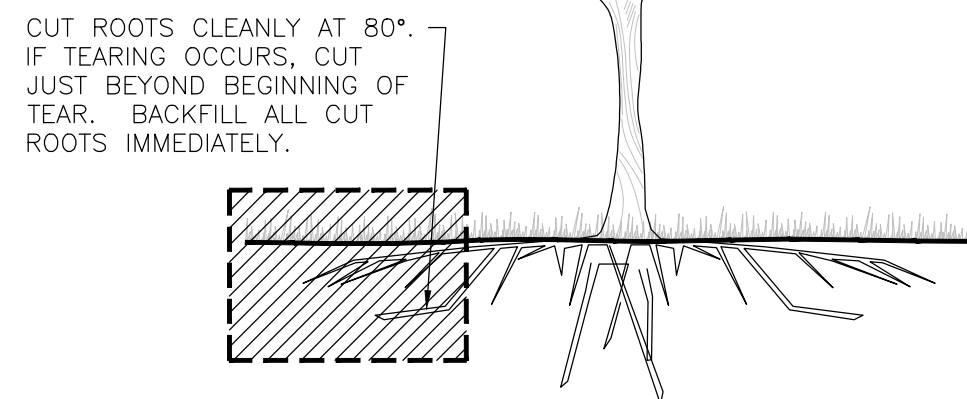
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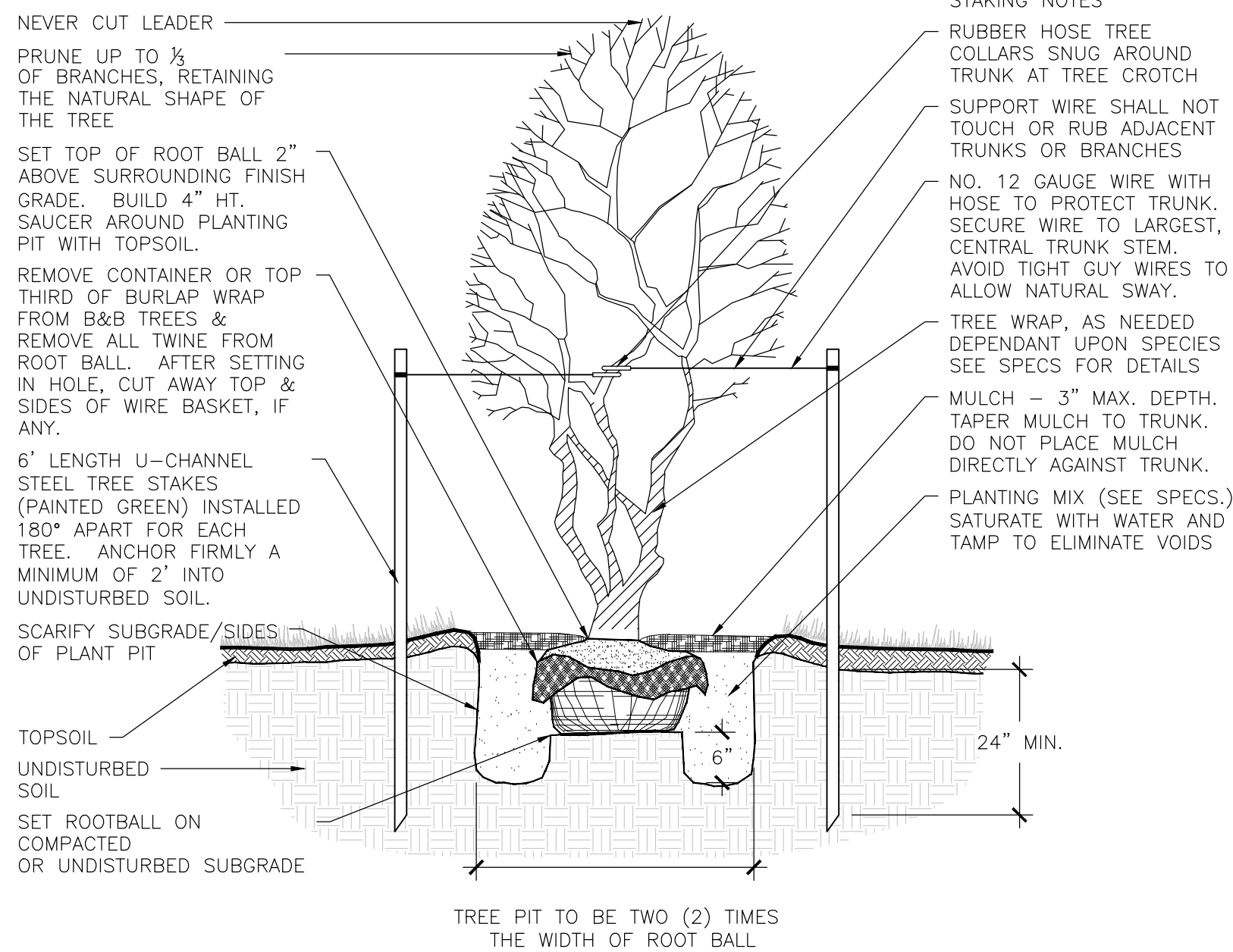




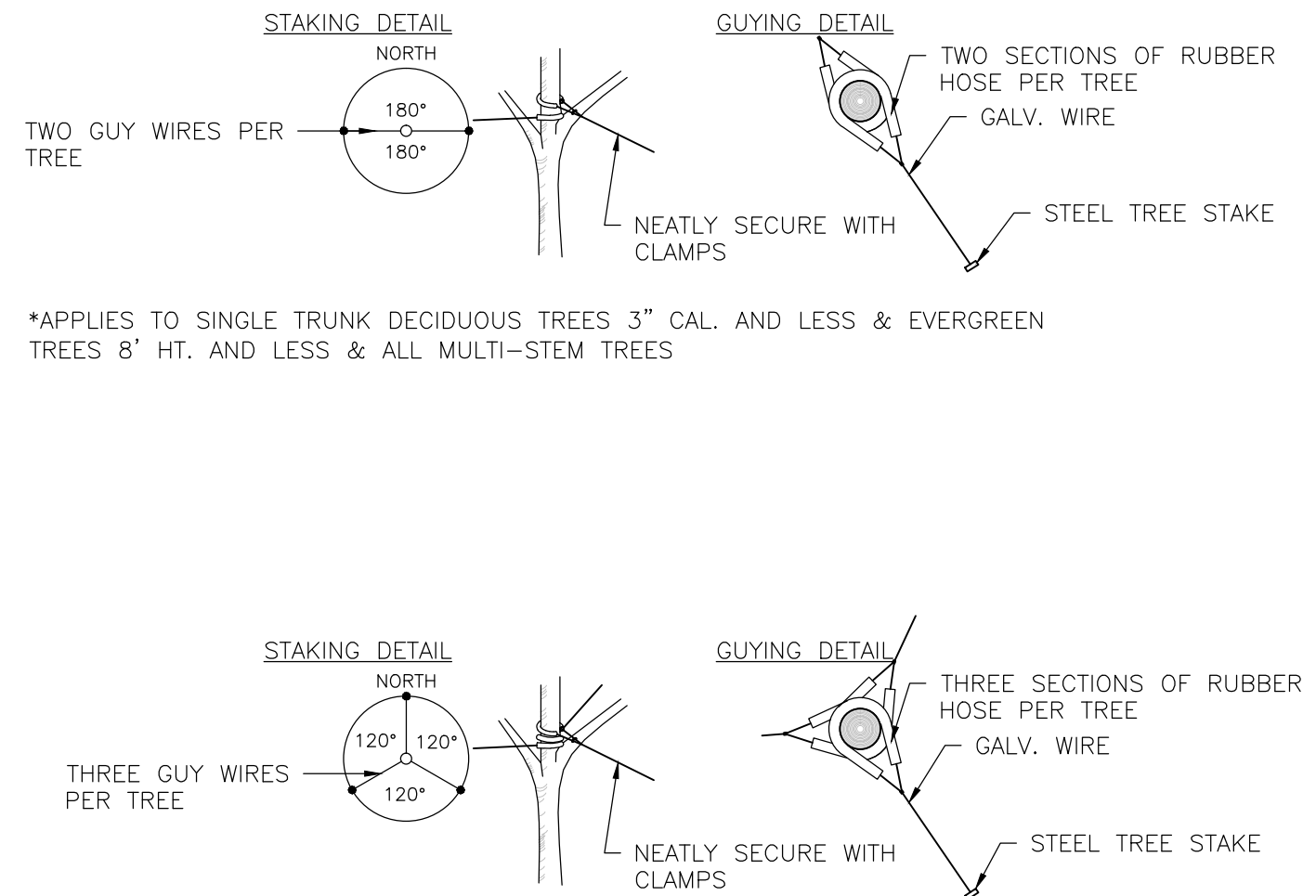
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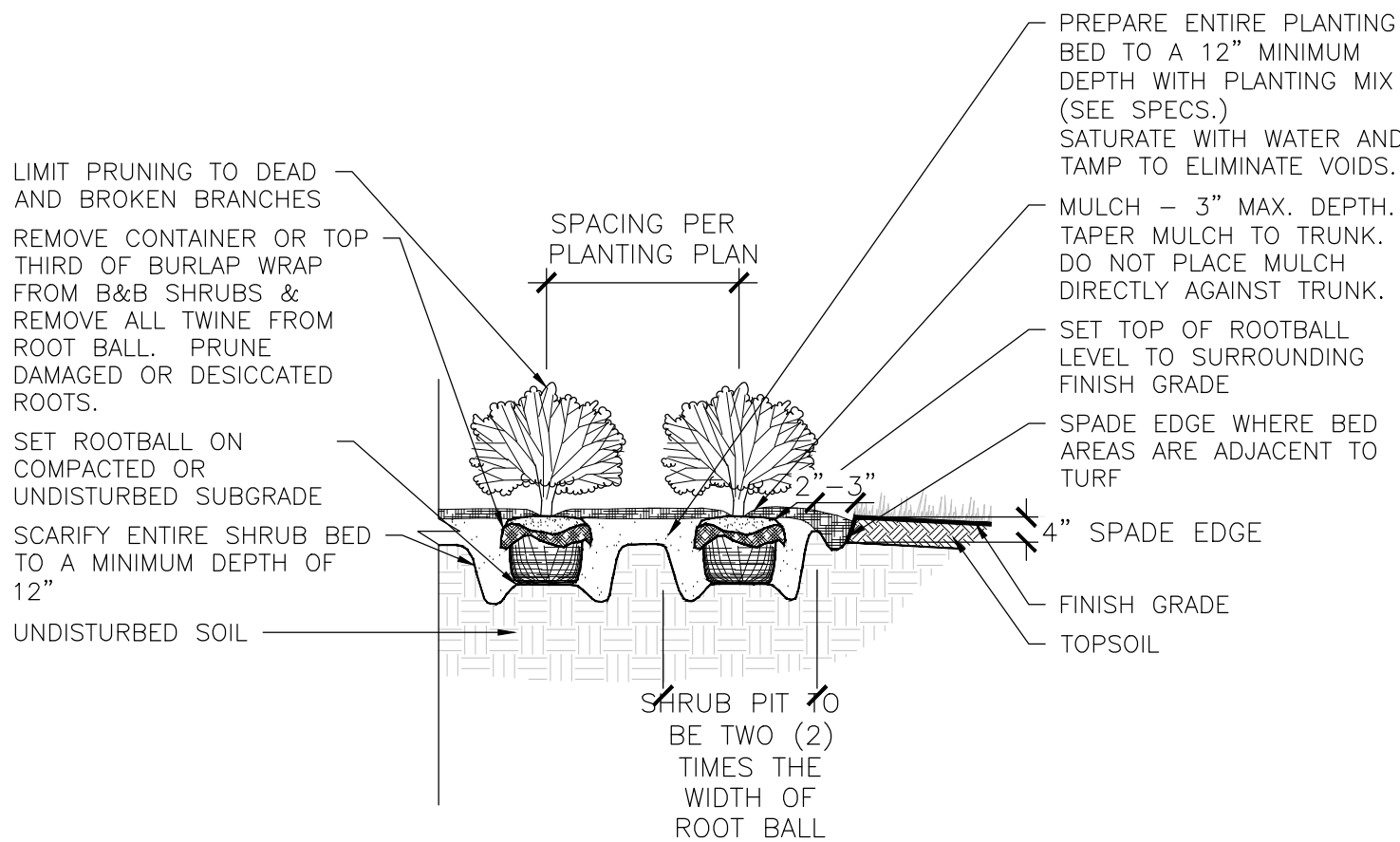
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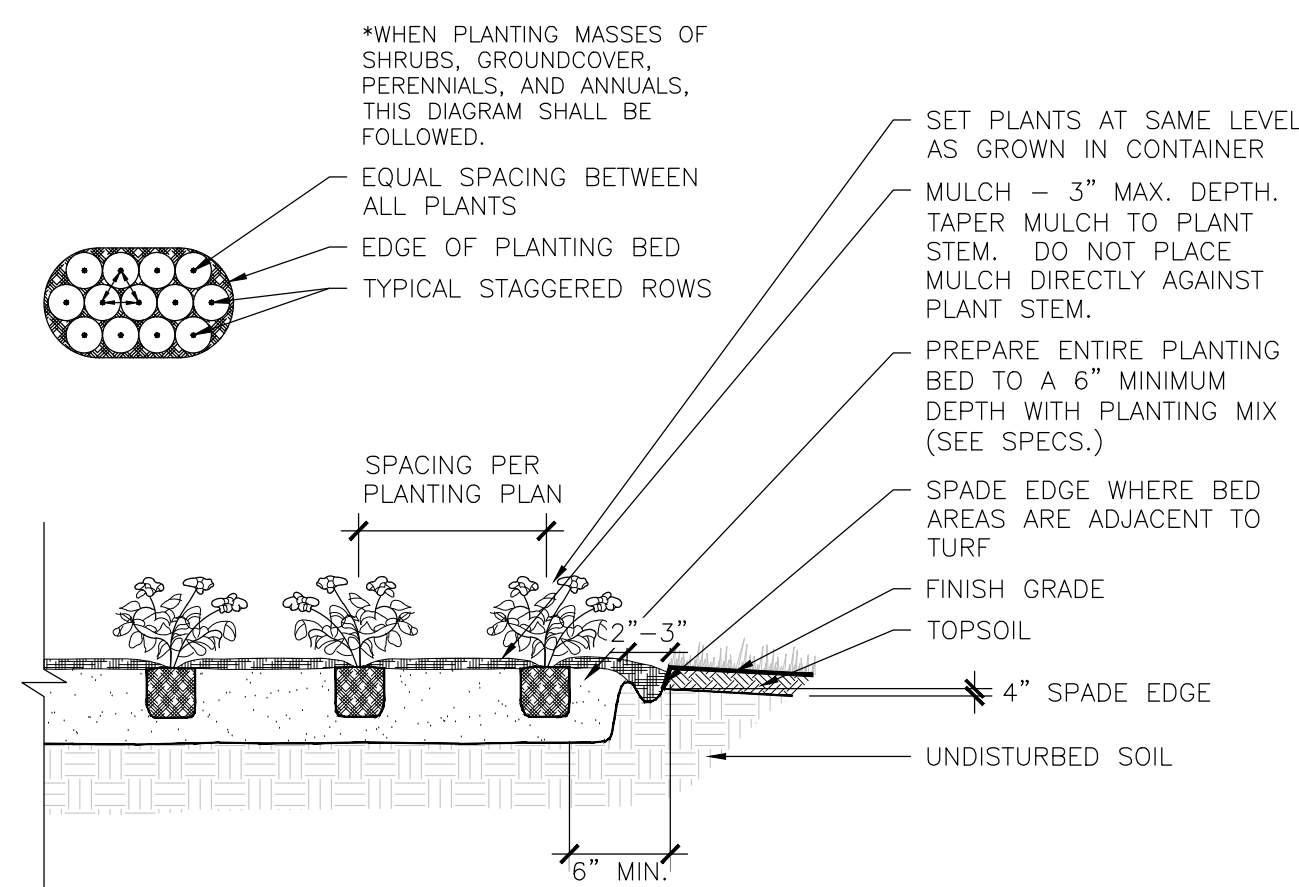
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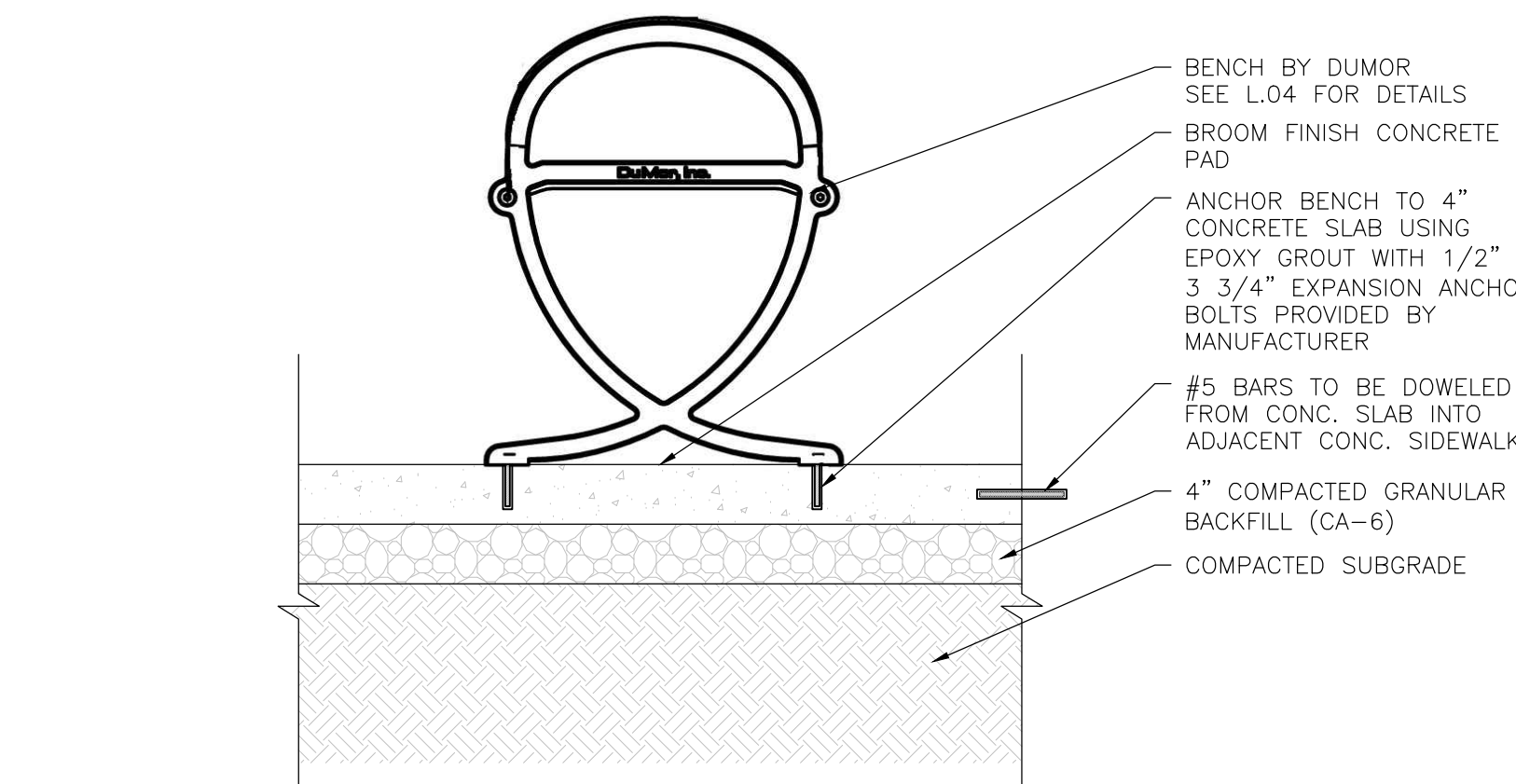
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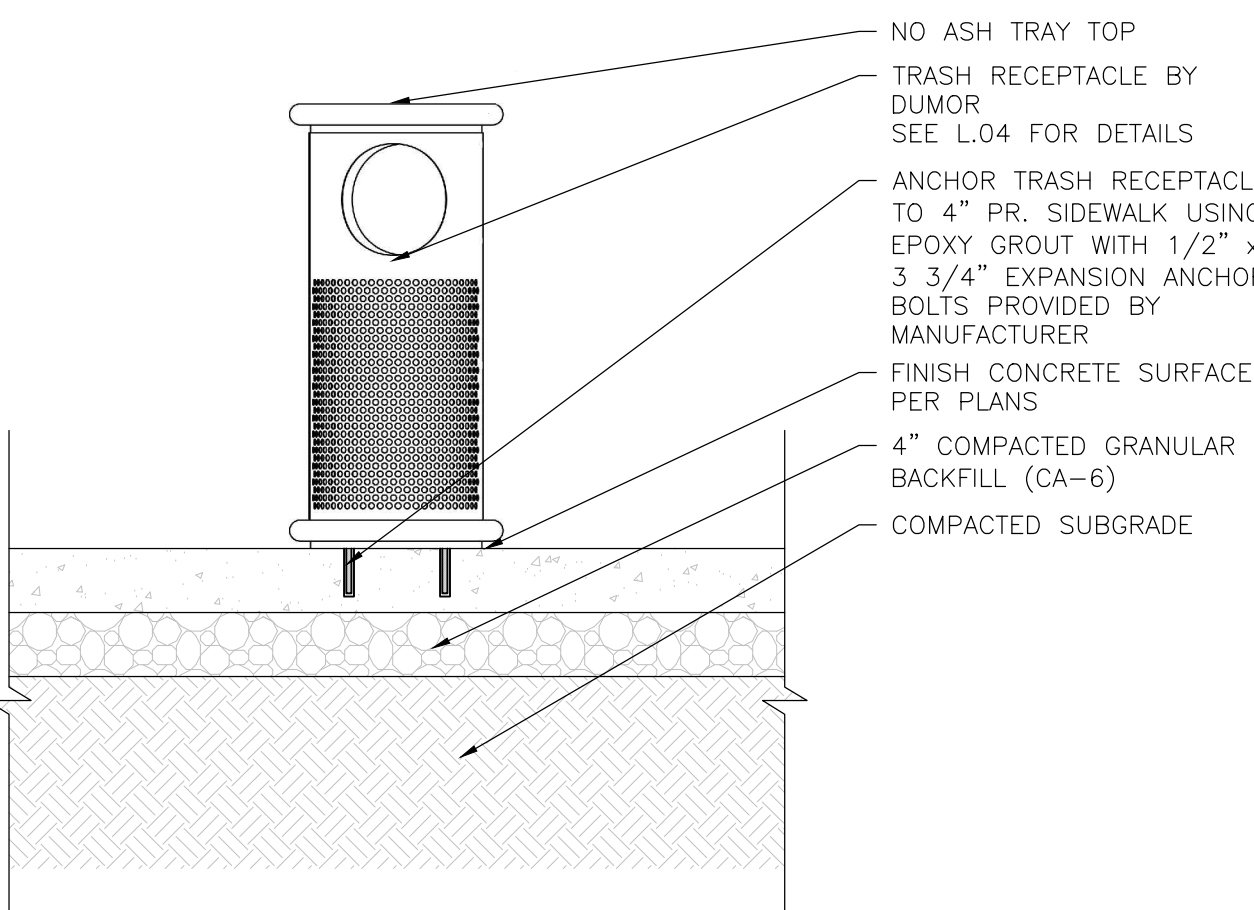
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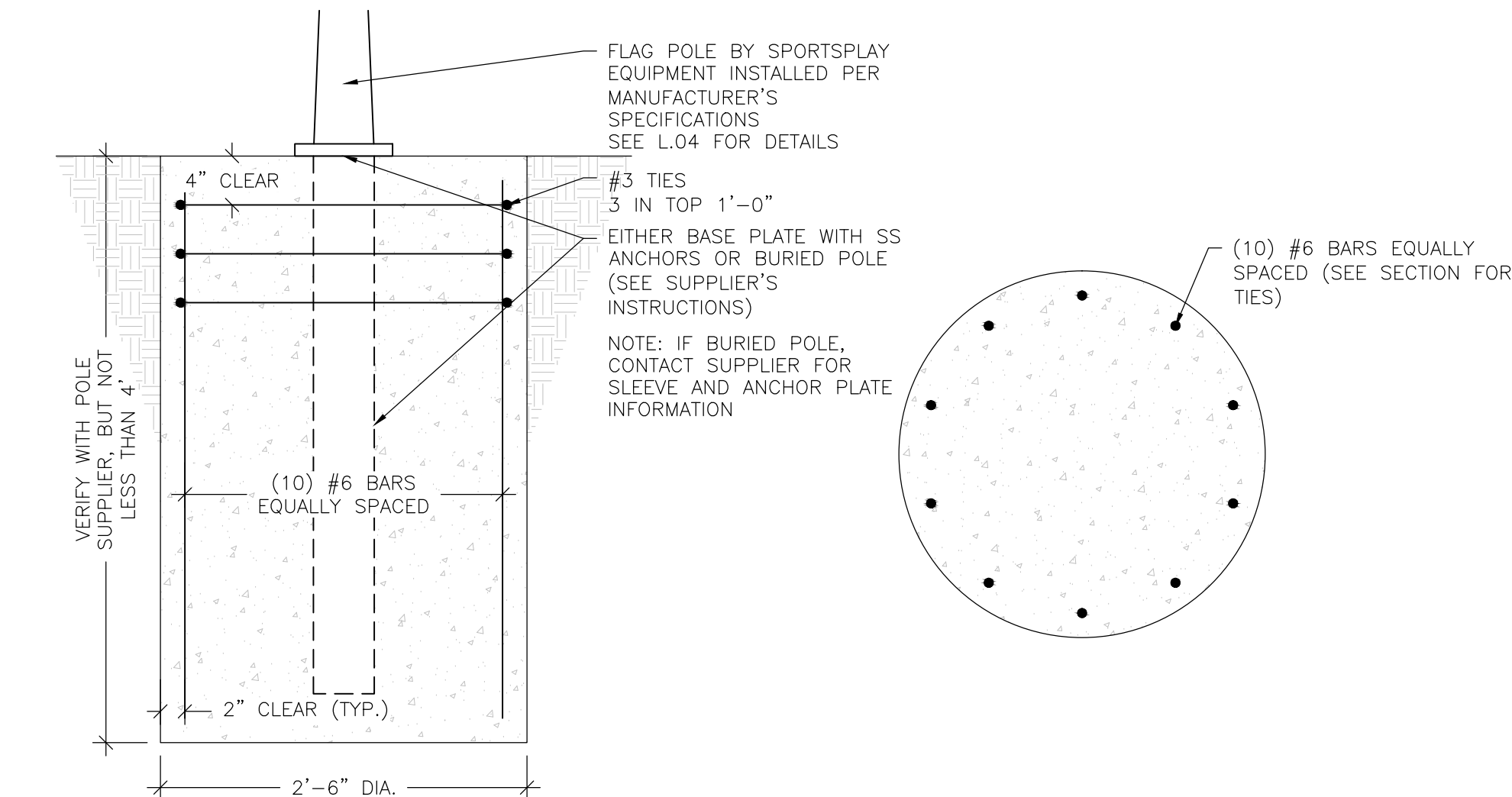
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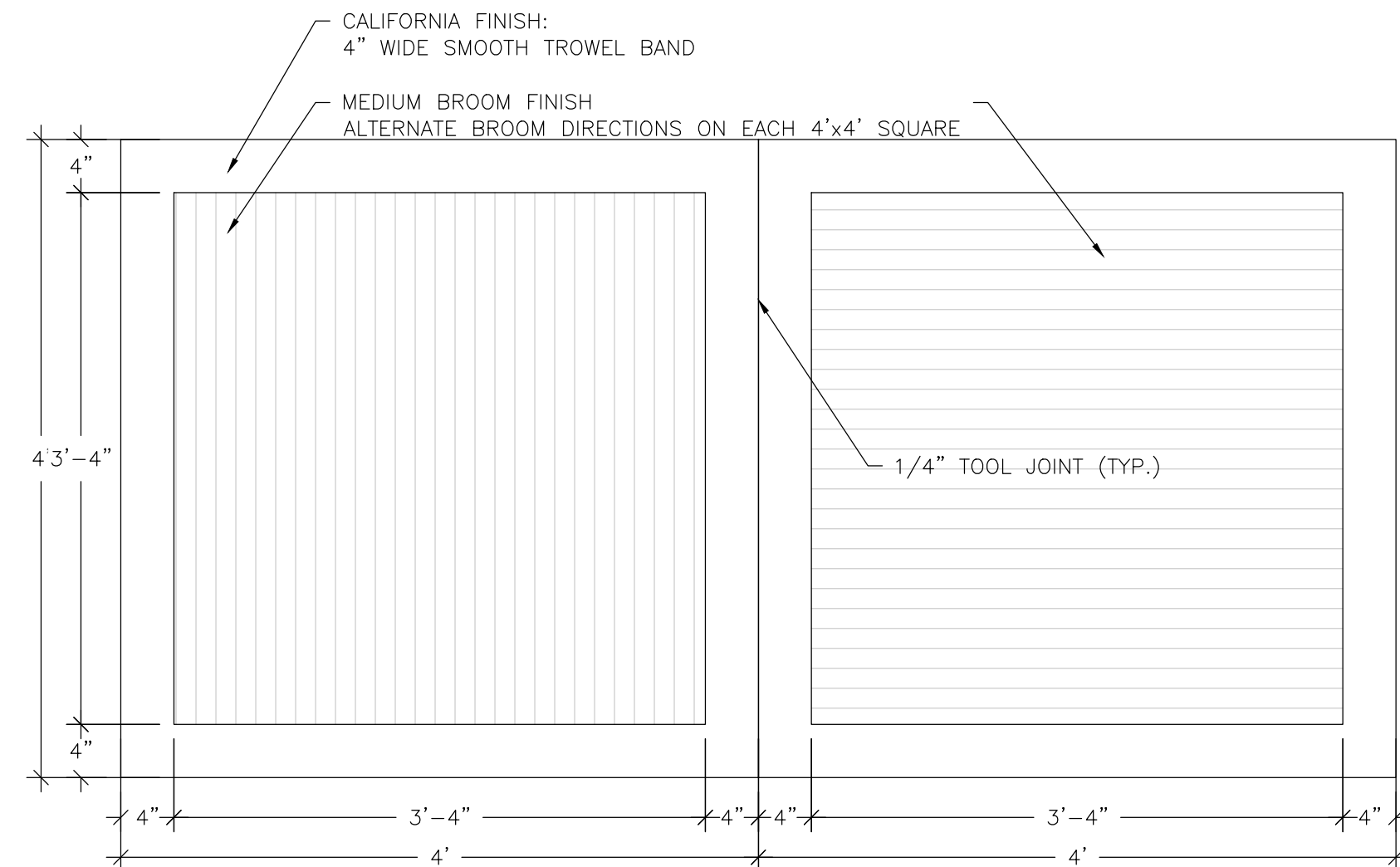
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SCALE: NTS



8 TYP. SECTION: TRASH RECEPTACLE  
SCALE: NTS



9 TYP. SECTION & PLAN: FLAG POLE FOOTING  
SCALE: NTS



10 TYP. PLAN: CALIFORNIA FINISH  
SCALE: NTS



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ILLINOIS DESIGN FIRM # 184-001322  
420 N. FRONT STREET, SUITE 100  
McHENRY, ILLINOIS 60050  
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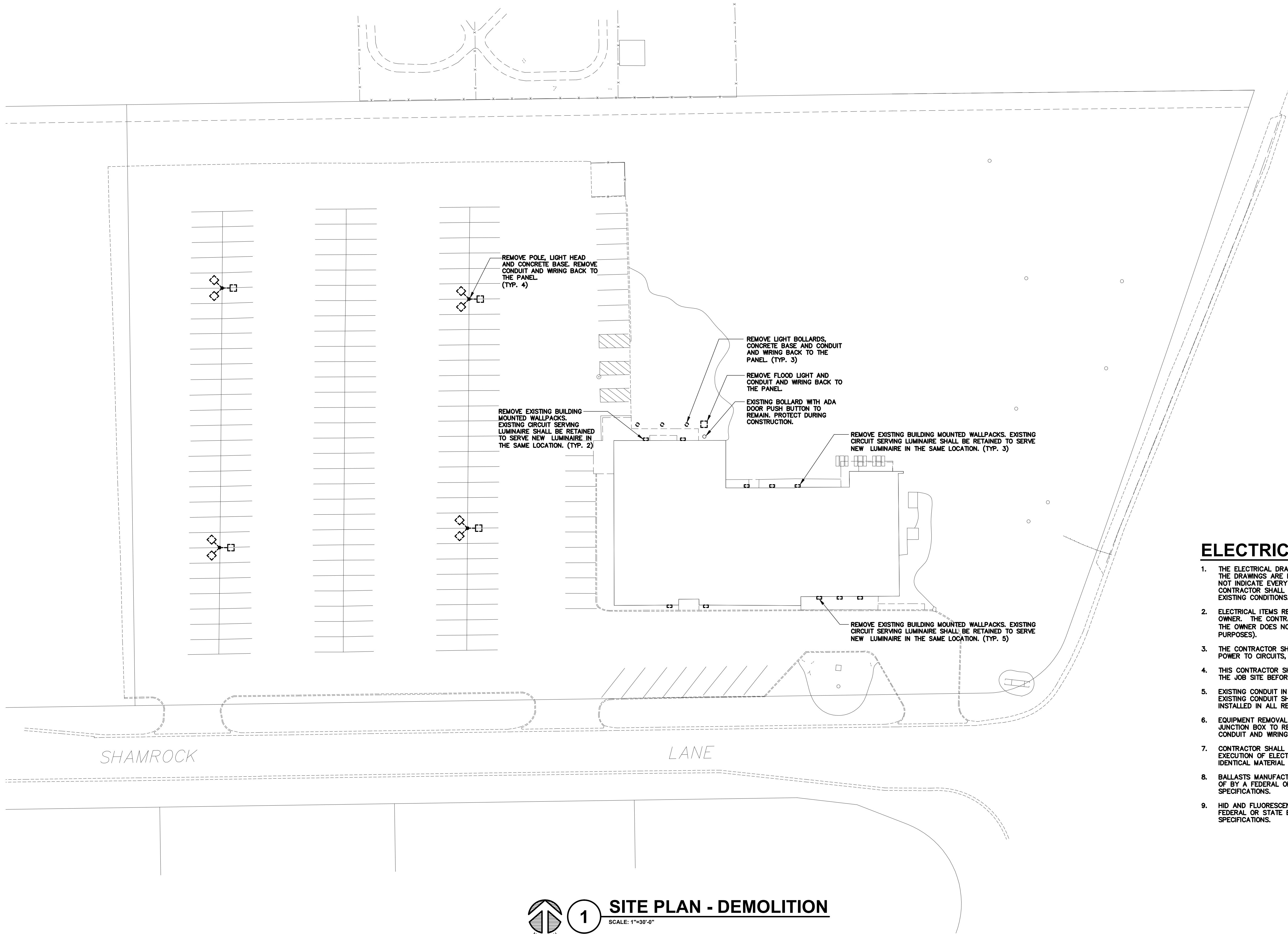
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SHAH CENTER PARKING LOT  
RESURFACING  
McHENRY, ILLINOIS

LANDSCAPE  
LANDSCAPE DETAILS

SHEET NO.  
L.05





**ELECTRICAL DEMOLITION NOTES:**

1. THE ELECTRICAL DRAWINGS INDICATE EXISTING ELECTRICAL ITEMS TO BE REMOVED. THE DRAWINGS ARE INTENDED TO INDICATE THE SCOPE OF WORK REQUIRED AND DO NOT INDICATE EVERY BOX, CONDUIT, OR WIRE THAT MUST BE REMOVED. THE CONTRACTOR SHALL VISIT THE SITE PRIOR TO SUBMITTING A BID AND VERIFY EXISTING CONDITIONS.
2. ELECTRICAL ITEMS REMOVED AND NOT RELOCATED REMAIN THE PROPERTY OF THE OWNER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DISPOSAL OF MATERIAL THE OWNER DOES NOT WANT TO REUSE OR RETAIN (I.e., FOR MAINTENANCE PURPOSES).
3. THE CONTRACTOR SHALL OBTAIN APPROVAL FROM THE OWNER BEFORE TURNING OFF POWER TO CIRCUITS, FEEDERS, PANELS, ETC.COORDINATE ALL OUTAGES WITH OWNER.
4. THIS CONTRACTOR SHALL COORDINATE ALL HIS WORK WITH OTHER CONTRACTORS AT THE JOB SITE BEFORE REMOVING EXISTING ELECTRICAL AND INSTALLING NEW ITEMS.
5. EXISTING CONDUIT IN GOOD CONDITION, MAY BE REUSED IN PLACE. RELOCATED EXISTING CONDUIT SHALL NOT BE ALLOWED. BONDING CONDUCTORS SHALL BE INSTALLED IN ALL REUSED CONDUIT TO ASSURE PROPER GROUND PATH.
6. EQUIPMENT REMOVAL IN CERTAIN LOCATIONS MAY REQUIRE THE INSTALLATION OF A JUNCTION BOX TO RECONNECT CIRCUITS THAT REMAIN IN OPERATION. EXTEND CONDUIT AND WIRING AS REQUIRED TO MAINTAIN POWER TO REMAINING EQUIPMENT.
7. CONTRACTOR SHALL REMOVE AND INSTALL ALL CEILING TILES AS REQUIRED FOR THE EXECUTION OF ELECTRICAL WORK. CONTRACTOR SHALL REPLACE CEILING TILES WITH IDENTICAL MATERIAL WHERE DAMAGED BY THIS CONTRACTOR.
8. BALLASTS MANUFACTURED PRIOR TO 1980 CONTAIN PCBs AND SHALL BE DISPOSED OF BY A FEDERAL OR STATE E.P.A. APPROVED METHOD AND IN ACCORDANCE WITH SPECIFICATIONS.
9. HID AND FLUORESCENT LAMPS CONTAIN MERCURY AND SHALL BE DISPOSED OF BY A FEDERAL OR STATE E.P.A. APPROVED METHOD AND IN ACCORDANCE WITH SPECIFICATIONS.



1

**SITE PLAN - DEMOLITION**

SCALE: 1"=30'-0"

KJW

ENGINEERING  
CONSULTANTS

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630.527.2320 FAX: 630.527.2321  
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420 N. FRONT STREET, SUITE 100  
McHENRY, ILLINOIS 60050  
PHONE: 815.385.1778 | TOLL FREE: 800.728.7805  
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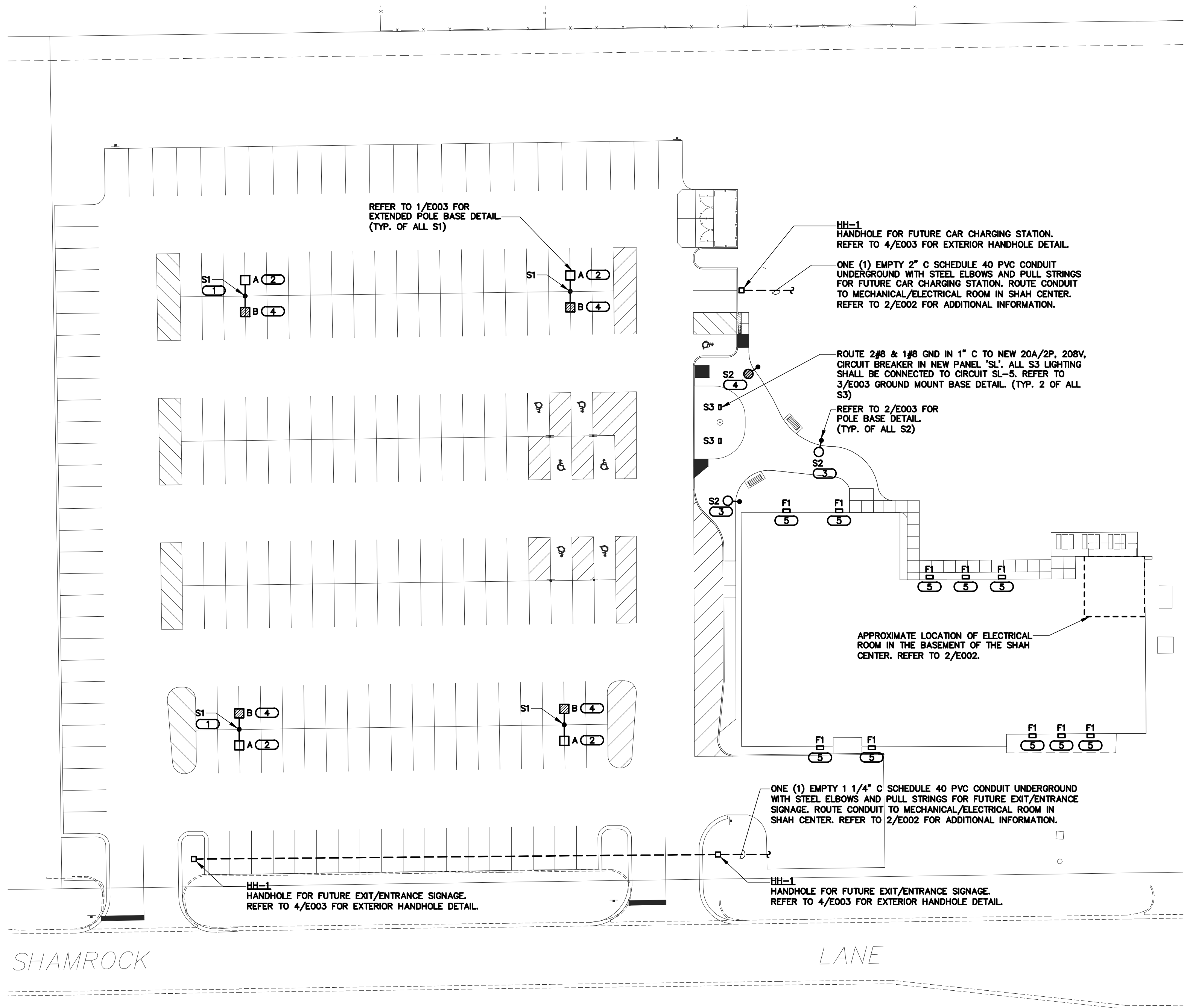
McHenry  
County College

SHAH CENTER PARKING LOT  
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**SITE PLAN — DEMOITION**

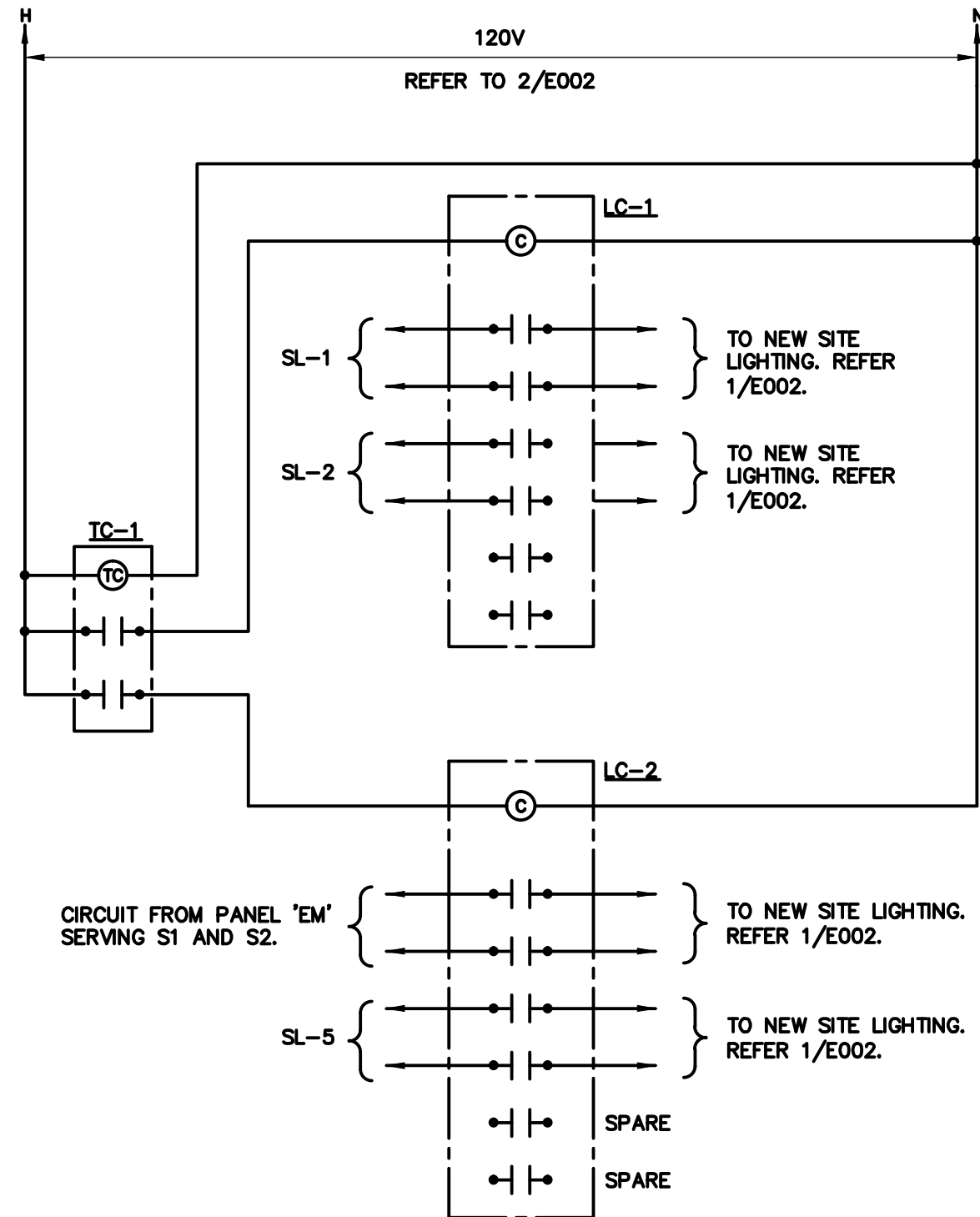
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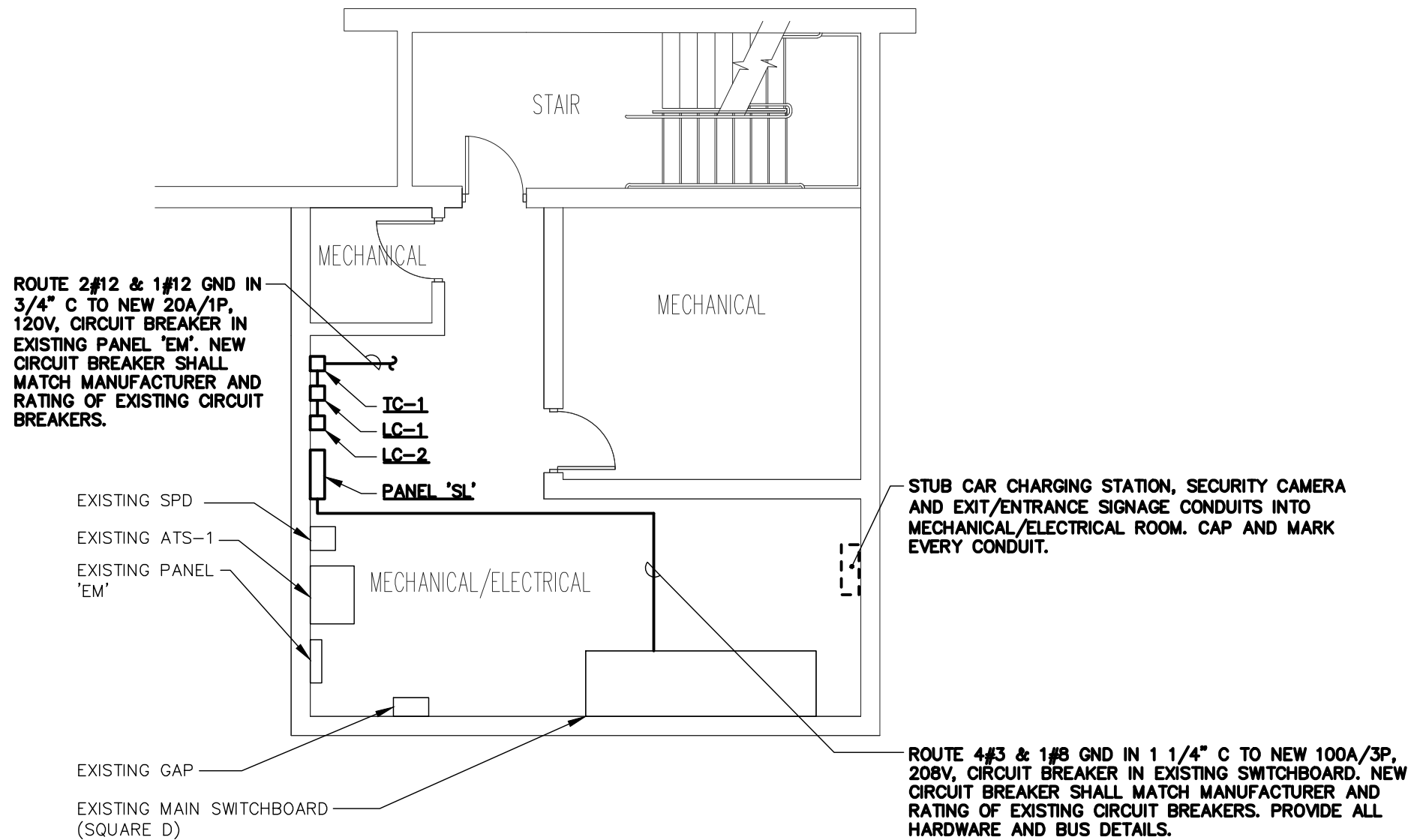
## 1 SITE PLAN - ELECTRICAL

SCALE: 1"=30'-0"



## 3 EXTERIOR LIGHTING CONTROL WIRING DIAGRAM

NO SCALE



## 2 BASEMENT FLOOR PLAN - SHAH CENTER ELECTRICAL

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

## ELECTRICAL INSTALLATION NOTES:

1. CIRCUIT NUMBERS ARE SHOWN FOR CIRCUIT IDENTIFICATION. CIRCUITING SHALL AGREE WITH NUMBERING ON THE PANEL PROVIDED. COMMON NEUTRALS MAY BE USED FOR BRANCH CIRCUITS. BALANCE THE LOAD ON PANEL AS EVENLY AS POSSIBLE BETWEEN EACH PHASE.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL OPENINGS REQUIRED IN WALLS. ALL OPENINGS SHALL BE REPAIRED TO MATCH EXISTING BY A QUALIFIED CONTRACTOR AT THE EXPENSE OF THIS CONTRACTOR. ALL CONDUITS THROUGH WALLS SHALL BE GROUTED OR SEALED INTO OPENINGS.
3. ALL MATERIALS USED TO SEAL PENETRATIONS OF FIRE RATED WALLS AND FLOORS SHALL BE TESTED AND CERTIFIED AS A SYSTEM PER ASTM E814 STANDARDS FOR FIRE TESTS OF THROUGH-PENETRATION FIRESTOPS, SEE SECTION 26 05 03.
4. REFER TO E003 FOR THE LUMINAIRE AND GENERAL ELECTRICAL EQUIPMENT SCHEDULE.
5. COORDINATE EXACT LOCATION OF ALL SITE LUMINAIRES WITH CIVIL ENGINEER.
6. REFER TO 1/E104 FOR THE PHOTOMETRICS SITE PLAN.
7. CONDUITS UNDER ROADS, DRIVES, AND VEHICLE TRAVELED WAYS SHALL BE CONCRETE ENCASED PVC WITH A MINIMUM OF 3" CONCRETE COVER ON ALL SIDES OF CONDUITS.

## GENERAL ELECTRICAL NOTES:

1. "1/E003" INDICATES DETAIL NUMBER/SHEET NUMBER.
2. HH-1 INDICATES ELECTRICAL EQUIPMENT DEFINED IN ELECTRICAL SCHEDULES. REFER TO DRAWINGS CONTAINING ELECTRICAL SCHEDULES. PERMANENT NAMEPLATE SHALL MATCH FINAL EQUIPMENT NOMENCLATURE, NOT ELECTRICAL EQUIPMENT TAG NAME, REFER TO SPECIFICATIONS.
3. INDICATES KEYED NOTE USED TO DESCRIBE ADDITIONAL INFORMATION OF WORK REQUIRED, SPECIFIC TO THE SHEET AND/OR DETAIL IT IS SHOWN WITH.
4. SHADED LUMINAIRE OR DEVICE INDICATES LUMINAIRE OR DEVICE IS CONNECTED TO AN EMERGENCY CIRCUIT.
5. ALL ELECTRICAL CONDUCTORS SHALL BE COPPER.
6. ABBREVIATION KEY:  
E.C. ELECTRICAL CONTRACTOR  
G.C. GENERAL CONTRACTOR  
C CONDUIT  
TYP TYPICAL
7. LINE TYPE KEY:  
NEW WORK BY THIS CONTRACTOR (DARK SOLID LINE)  
NEW WORK UNDERFLOOR OR UNDERGROUND BY THIS CONTRACTOR (DARK LONG DASHED LINE)  
NEW WORK BY OTHERS AND/OR EXISTING TO REMAIN (LIGHT SOLID LINE)  
EXISTING TO BE REMOVED BY THIS CONTRACTOR (DARK SHORT DASHED LINE)

### KEYNOTES

1. ROUTE ADDITIONAL ONE (1) EMPTY 1 1/4" SCHEDULE 40 PVC CONDUIT UNDERGROUND WITH STEEL ELBOWS AND PULL STRINGS FOR FUTURE SECURITY CAMERAS TO MECHANICAL/ELECTRICAL ROOM IN SHAH CENTER. CAP AND MARK CONDUIT. REFER TO 2/E002 FOR ADDITIONAL INFORMATION.
2. ROUTE 2#8 & 1#8 GND IN 1" C TO NEW 20A/2P, 208V, CIRCUIT BREAKER IN NEW PANEL 'SL'. ALL NORMAL LIGHTING S2 HEADS SHALL BE CONNECTED TO CIRCUIT SL-1. REFER TO 3/E002 FOR EXTERIOR LIGHTING CONTROL WIRING DIAGRAM. REFER TO 2/E002 FOR PANEL LOCATION.
3. ROUTE 2#8 & 1#8 GND IN 1" C TO NEW 20A/2P, 208V, CIRCUIT BREAKER IN NEW PANEL 'SL'. ALL S2 NORMAL LIGHTING SHALL BE CONNECTED TO CIRCUIT SL-2. REFER TO 3/E002 FOR EXTERIOR LIGHTING CONTROL WIRING DIAGRAM. REFER TO 2/E002 FOR PANEL LOCATION.
4. ROUTE 2#8 & 1#8 GND IN 1" C TO NEW 20A/2P, 208V, CIRCUIT BREAKER IN EXISTING PANEL 'EM'. ALL EMERGENCY LIGHTING S2 AND S1 HEADS SHALL BE CONNECTED TO THE SAME CIRCUIT. NEW CIRCUIT BREAKER SHALL MATCH MANUFACTURER AND RATING OF EXISTING CIRCUIT BREAKERS. REFER TO 3/E002 FOR EXTERIOR LIGHTING CONTROL WIRING DIAGRAM. REFER TO 2/E002 FOR PANEL LOCATION.
5. CONNECT NEW LUMINAIRE TO EXISTING CIRCUIT SERVING REMOVED WALL PACKS.



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REFERENCE SCALE IN INCHES  
0 1 2 3

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APPROVED: JL JOB NUMBER: 86140157  
CAD DATE: IF NOT ONE INCH, ADJUST SCALE ACCORDINGLY.  
CAD FILE: BAR IS ONE INCH ON OFFICIAL DRAWINGS. 0 1"

NO.	DATE	BY	REVISION DESCRIPTION



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SHAH CENTER PARKING LOT  
RESURFACING  
McHENRY, ILLINOIS

SITE PLAN - ELECTRICAL

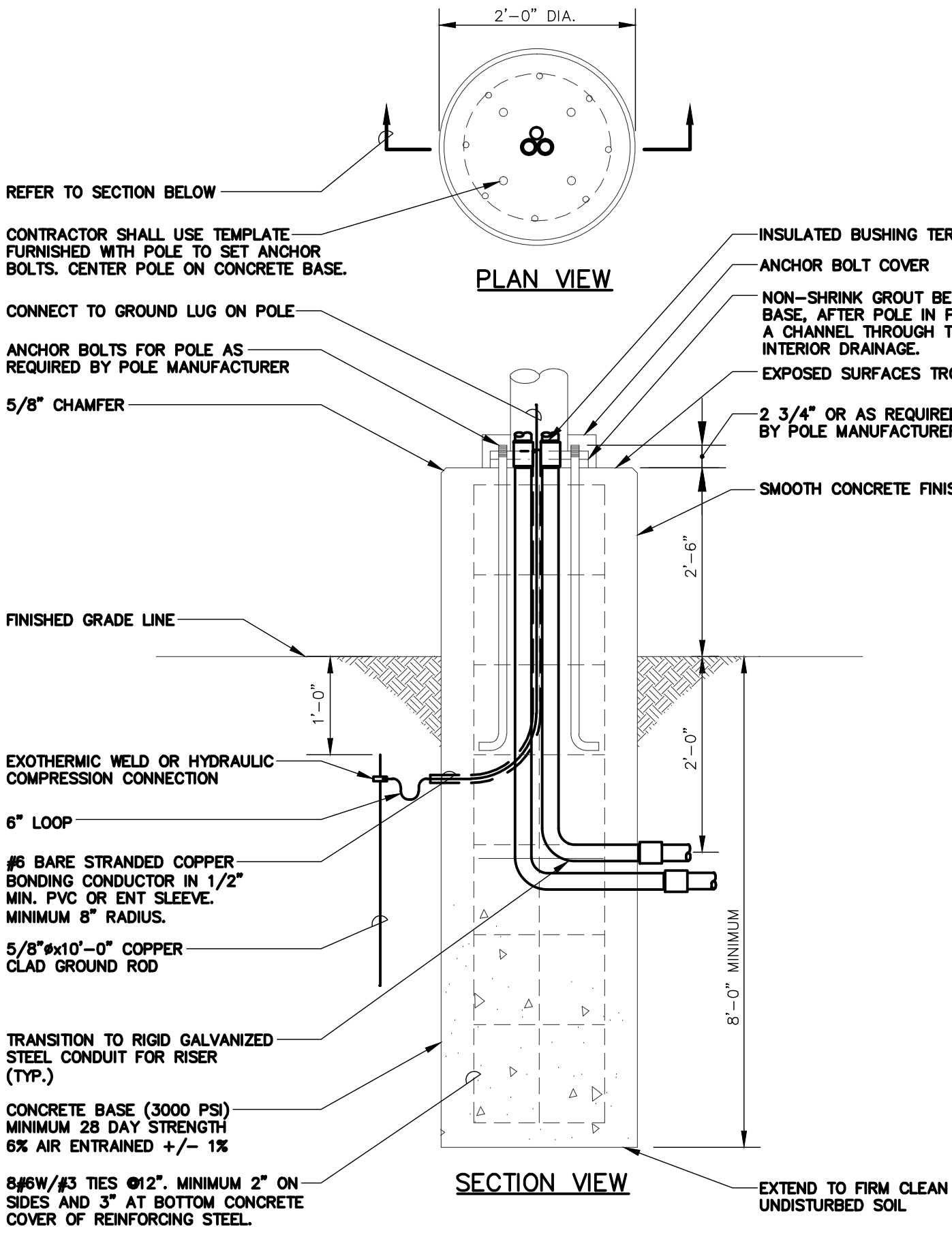
SHEET NO.

E002

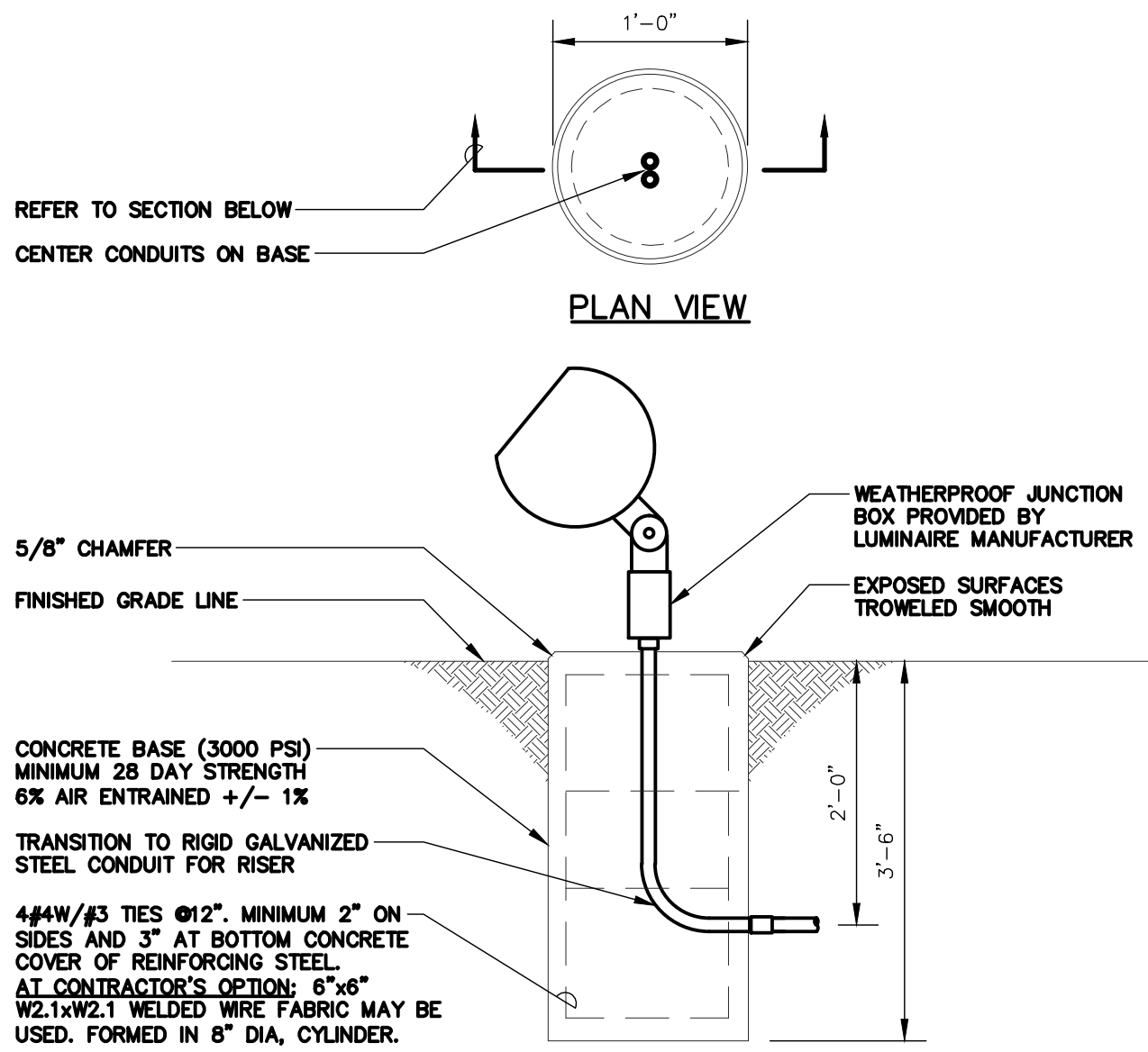


LUMINAIRE SCHEDULE									
<b>MOUNTING: (MTG)</b> RE- RECESSED SP- SUSPENDED CL- CEILING SURFACE WL- WALL UC- UNDER CABINET CV- COVE PL- POLE O- OTHER (SEE DESCRIPTION)			<b>LAMP TYPE:</b> FL- FLUORESCENT CF- COMPACT FLUORESCENT IN- INCANDESCENT LED- LIGHT EMITTING DIODE HS- HIGH PRESSURE SODIUM MH- METAL HALIDE MV- MERCURY VAPOR LV- LOW VOLTAGE SMH- SUPER METAL HALIDE PSMH- PULSE START METAL HALIDE O- OTHER (SEE DESCRIPTION) XL- EXTENDED LIFE 24,000 HR XLP- EXTENDED LIFE & OUTPUT 24,000 HOURS 3100 LUMENS				<b>LENS/LOUVER: (LL)</b> A- 125° ACRYLIC B- BLACK BAFFLE C- CLEAR ALZAK D- PARABOLIC F- FRESNEL G- TEMPERED GLASS H- WALL WASHER P- POLYCARBONATE K- KSH12 125° ACRYLIC K19- KSH19 156° ACRYLIC L- LOW IRIDESCENT SPECULAR ALUM. N- NONE R- HIGH IMPACT DR ACRYLIC O- OTHER (SEE DESCRIPTION)		
			<b>DOOR:</b> FA- FLAT ALUMINUM FS- FLAT STEEL RA- REGRESSED ALUMINUM RS- REGRESSED STEEL			<b>BALLAST: (BLS)</b> DIM- DIMMING BALLAST EB- ELECTRONIC BALLAST EM- EMERGENCY BATTERY/BALLAST DALI- DIGITAL DIMMING BALLAST			<b>##BF- BALLAST FACTOR</b> HL- HIGH /LOW LEVEL BALLAST HP- HIGH PERFORMANCE ML- MULTI-LEVEL SWITCHING MV- MULTI-VOLTAGE ELECTRONIC
<b>FINISH:</b> PAF- PAINT AFTER FABRICATION CSA- FINISH SELECTION BY ARCHITECT									
CATALOG NUMBER SHALL NOT BE CONSIDERED COMPLETE AND MATERIAL SHALL NOT BE ORDERED BY MANUFACTURER AND CATALOG NUMBER ONLY. THE COMPLETE DESCRIPTION AND THE SPECIFICATION SHALL BE COORDINATED WITH THE CATALOG NUMBER TO DETERMINE THE EXACT MATERIAL AND ACCESSORIES TO BE ORDERED. THE FIRST MANUFACTURER LISTED IS THE BASIS FOR DESIGN.									
ALL LAMPS FOR THIS PROJECT SHALL BE FURNISHED AND INSTALLED BY THE ELECTRICAL CONTRACTOR UNLESS OTHERWISE NOTED. LAMP CORRELATED COLOR TEMPERATURE 4000°K, COLOR RENDERING INDEX (CRI) AT OR ABOVE 70, UNLESS NOTED OTHERWISE.									
ITEM	DESCRIPTION	SIZE	MTG	TYPE	LAMPS QUANTITY & SIZE	VOLTS / BLS	L/L	APPROVED MANUFACTURER	
F1	EXTERIOR BUILDING MOUNTED LED WALL PACK, COORDINATE WITH CIVIL ENGINEER FOR FINISH SELECTION.	8 3/4" W 11" L 6 1/4" H	WL	LED	1 79 WATT 7000 LUMENS	120V	N	MCGRAW-EDISON XTOR9A-N	
S1	SITE LIGHTING LUMINAIRE, DUAL HEADS, DIE-CAST ALUMINUM HOUSING, INJECTION MOLDED ACRYLIC OPTICS, (A) 1 HEAD WITH TYPE 3 DISTRIBUTION AND (B) 1 HEAD WITH TYPE 4 FORWARD THROW DISTRIBUTION, LED DRIVER, 10KV TRANSIENT LINE SURGE PROTECTOR. COORDINATE WITH CIVIL ENGINEER FOR FINISH SELECTION. 1 A DRIVE CURRENT.  POLE: 30' HEIGHT, 6" SQUARE STRAIGHT ALUMINUM WITH INTERNAL VIBRATION DAMPER.	15 1/2" W 28 3/4" L 4" H	PL	LED	2 213 WATT (20704 LUMENS) 213 WATT (20555 LUMENS)	208V	O	MCGRAW-EDISON GLEON-AE-04-E1-T3 GLEON-AE-04-E1-T4FT	
S2	PEDESTRIAN SITE LIGHTING LUMINAIRE, SINGLE HEAD, ALUMINUM BELL-SHAPED HOUSING, ACRYLIC REFRACTOR TYPE OPTICS, CLEAR FLAT GLASS LENS, TYPE 3 DISTRIBUTION, 10KV TRANSIENT LINE SURGE PROTECTOR. COORDINATE WITH CIVIL ENGINEER FOR FINISH SELECTION.  POLE: 15' HEIGHT, WITH DECORATIVE BASE.	21" D 17.125" H	PL	LED	1 66 WATT	208V	O	STERNBERG 1521RLLED/FG/480H/5816P5/4ARC45T3/ML/NR/STD	
S3	FLAG POLE ACCENT LUMINAIRE, DIE-CAST ALUMINUM HOUSING AND DOOR, TIGHT SPOT WITH BAFFLE DISTRIBUTION, INJECTION MOLDED THERMOPLASTIC LENS, HEAVY-DUTY DIE-CAST ALUMINUM MOUNTING KNUCKLE. COORDINATE WITH CIVIL ENGINEER FOR FINISH SELECTION. LUMINAIRE MOUNTED ABOVE GRADE.	7 1/2" W 14" L 10" H	O	LED	1 24 WATT 1100 LUMENS	208V	O	INVUE VFS-K-A20-3-LED-E1-TSB BETA LIGHTING LITHONIA	

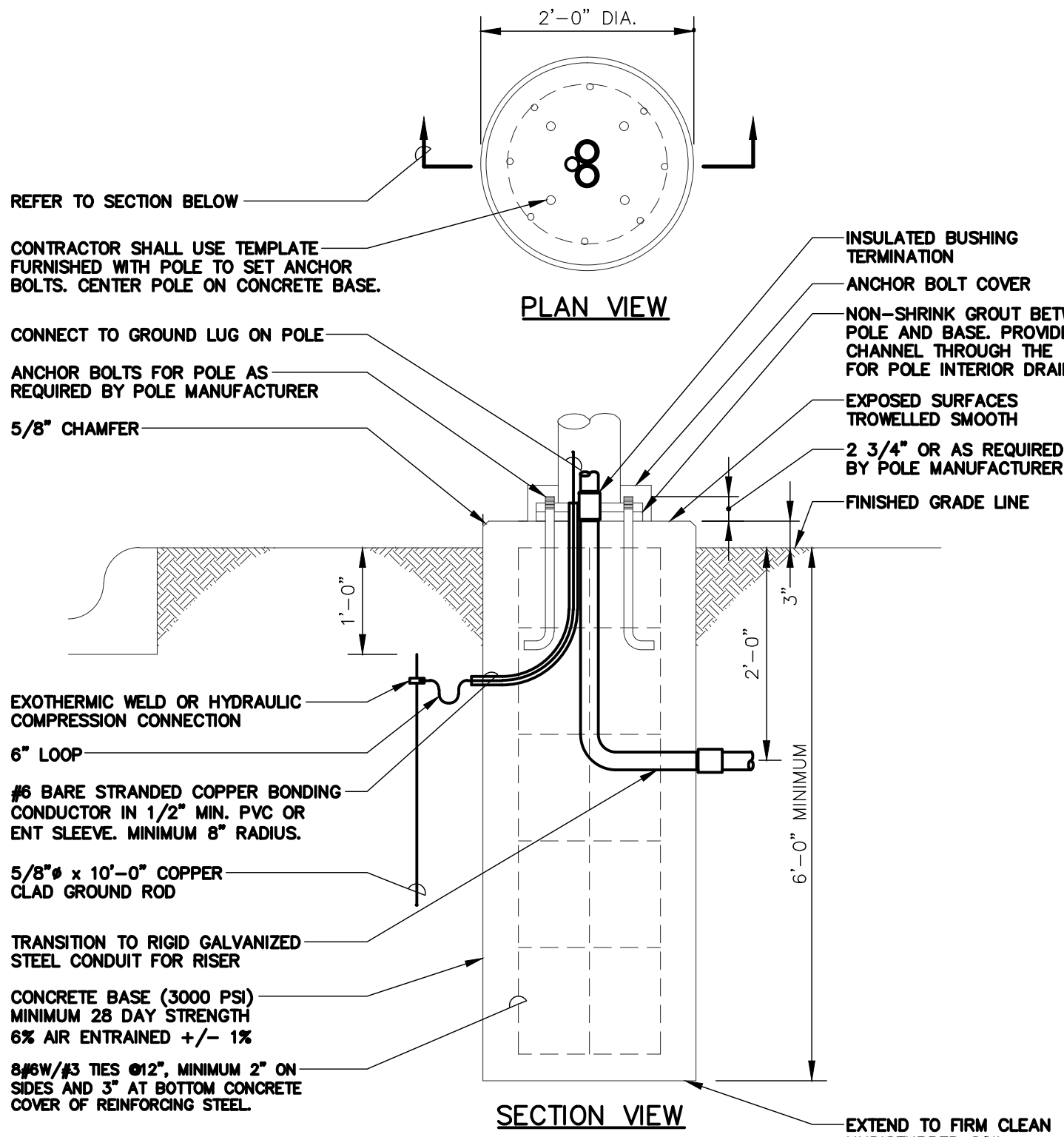
GENERAL ELECTRICAL EQUIPMENT SCHEDULE			
THE SYMBOLS AND THE EQUIPMENT SCHEDULE ARE FOR THE CONVENIENCE OF THE CONTRACTOR. EACH CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF QUANTITIES AND SHALL FURNISH ALL MATERIAL REQUIRED, WHETHER SPECIFIED OR NOT, TO PRODUCE A SATISFACTORY WORKING SYSTEM.			
CATALOG NUMBERS SHALL NOT BE CONSIDERED COMPLETE BUT ARE GIVEN ONLY TO AID THE CONTRACTOR IN THE SEARCH FOR MATERIAL. NO MATERIAL SHALL BE ORDERED BY MANUFACTURER AND CATALOG NUMBER ONLY. EACH CONTRACTOR SHALL FIRST READ THE COMPLETE DESCRIPTION OF THE MATERIAL ON THESE DRAWINGS AND SPECIFICATIONS. THE FIRST MANUFACTURER LISTED IS THE BASIS OF DESIGN. "STANDARD COLOR" INDICATES FACTORY FINISH AVAILABLE AT NO ADDITIONAL CHARGE.			
ITEM NO.	SYMBOL	DESCRIPTION	APPROVED MANUFACTURERS
1		HANDHOLE, COMPOSITE POLYMER CONCRETE BODY AND COVER. STAINLESS STEEL HARDWARE, BOLTED NON-SKID COVER RATED FOR 10,000 LB. DESIGN LOAD. OCCASIONAL NON-DELIBERATE VEHICULAR TRAFFIC. STACK UNITS TO ACHIEVE DEPTH SHOWN ON PLANS. UNITS IN LANDSCAPED AREAS SHALL BE GREEN IN COLOR. 11"W, 18"L, 18"D.	HUBBELL/QUAZITE PG SERIES CARSON INDUSTRIES H SERIES ARMORCAST HIGHLINE PRODUCTS SYNERTECH
2		PANELBOARD, SURFACE MOUNT, 100 AMP MLO, 208/120 VOLT, 3 PHASE, 4 WIRE, S/N, GROUND BUS, COPPER BUS, BOLT-ON BREAKERS, NEMA 1 ENCLOSURE, THIRTY (30) CIRCUITS, 22,000 AIC, REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION. PROVIDE FIVE (5) 20A/2P, 208V, AND TEN (10) 20A/1P, 120V, CIRCUIT BREAKERS. PROVIDE FILLER SPLATES FOR UNUSED SPACES.	SQUARE D NQ GENERAL ELECTRIC AQ SIEMENS P1 CUTLER-HAMMER PRL1
3		TIME SWITCH, 7 DAY, 2 CHANNEL, ELECTRONIC, TWO SPOT 15 AMP CONTACTS, TWO SEPARATE PROGRAMS WITH 16 SET POINTS AVAILABLE, L.C.D. DISPLAY, 12 OR 24 HOUR FORMAT, MINIMUM 100 HOURS CARRY-OVER, U.L. LISTED.	PARAGON EC72 TORK DTS 200A INTERMATIC ET70215C
4		LIGHTING CONTACTOR, ELECTRICALLY HELD, 120 VOLT COIL, 300 VOLT 30 AMP CONTINUOUS CONTACTS, 6 POLE, N.E.M.A. 1 ENCLOSURE.	SQUARE D CLASS 8903 SIEMENS LEN SERIES CUTLER HAMMER CN350G



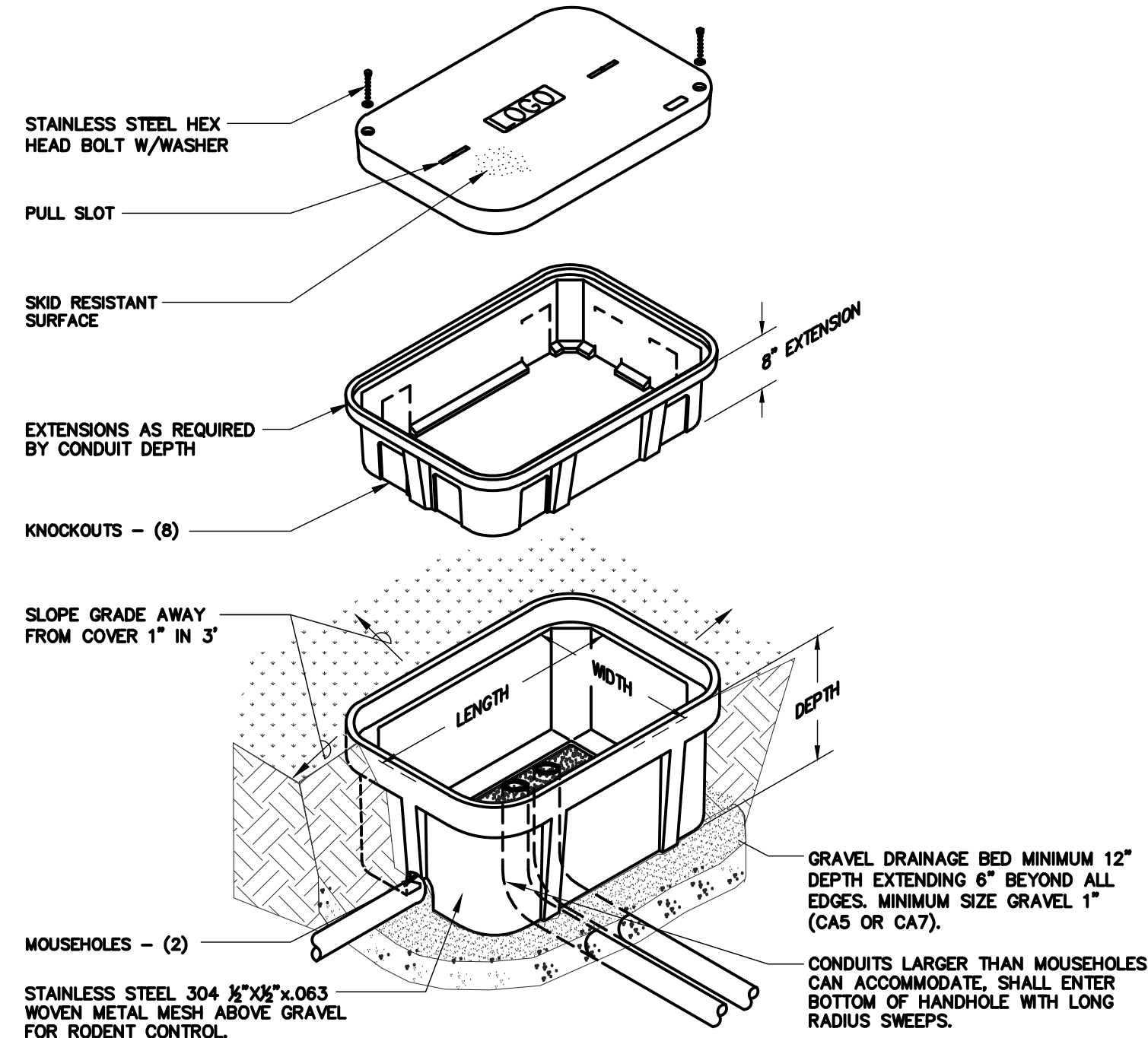
1 EXTENDED POLE BASE DETAIL  
NO SCALE



2 GROUND MOUNT BASE DETAIL  
NO SCALE



2 POLE BASE DETAIL  
NO SCALE



- NOTES:
1. ALL DIMENSIONS ARE NOMINAL INSIDE CLEARANCES.
  2. ALL SPLICES OR DEVICES IN HANDHOLE SHALL BE SUBMERSIBLE.
  3. SEAL ALL CONDUIT ENDS WITH DUCTSEAL

4 EXTERIOR HANDHOLE DETAIL  
NO SCALE

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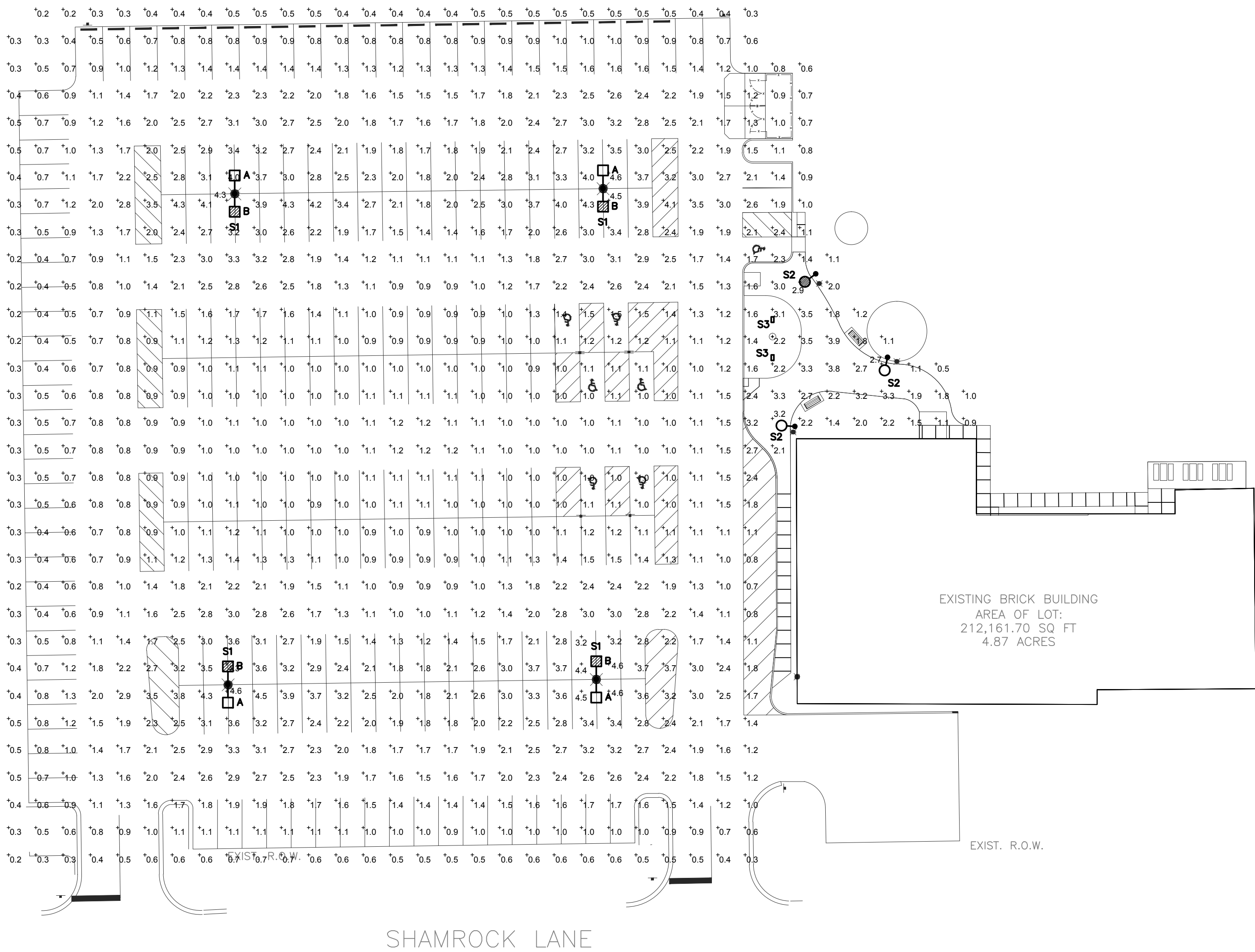
ELECTRICAL DETAILS

SHEET NO.

E003

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LUMINAIRE SCHEDULE								
LABEL	QTY	CATALOG NUMBER	DESCRIPTION	Lamp	NUMBER LAMPS	LUMENS PER LAMP	LLF	WATTAGE
S2	4	1521RLED-CFG-4ARC45T3	AL CAST HOUSING, COATED CLEAR FLAT GLASS, TYPE 3, BLK TXTRD FNISH	56 LEDs, 4 ARC	1	4907.787	0.9	65.6
S1_B	4	GLEON-AE-04-LED-E1-T4FT	GALLEON LED AREA AND ROADWAY LUMINAIRE (4) 70 CRI, 4000K, 1A LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV FORWARD THROW OPTICS ABSOLUTE PHOTOMETRY IS BASED ON CALIBRATION FACTORS CREATED USING LAB LUMEN STANDARDS IN GONIOPHOTOMETER WITH TEST DISTANCE OF 28.75 FEET		64	324.7102	0.9	213
S1_A	4	GLEON-AE-04-LED-E1-T3	GALLEON LED AREA AND ROADWAY LUMINAIRE (4) 70 CRI, 4000K, 1A LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III OPTICS ABSOLUTE PHOTOMETRY IS BASED ON CALIBRATION FACTORS CREATED USING LAB LUMEN STANDARDS IN GONIOPHOTOMETER WITH TEST DISTANCE OF 28.75 FEET		64	323.6157	0.9	213

STATISTICS						
DESCRIPTION	SYMBOL	AVG	MAX	MIN	MAX/MIN	AVG/MIN
Parking Lot		1.6 fc	4.6 fc	0.2 fc	23.0:1	8.0:1



1

## SITE PLAN – PHOTOMETRICS

SCALE: 1"=30'-0"

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## SITE PLAN – PHOTOMETRICS

SHEET NO.  
E104