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E WMOJobStart@mwr.org

EDWARDS REALTY COMPANY
14400 SOUTH JOHN HUMPHREY, SUITE 200
ORLAND PARK, ILLINOIS 60462
PHONE: (708) 923-6312

DXU ARCHITECTS
412 S WELLS STREET, 2ND FLOOR
CHICAGO, ILLINOIS 60607
PHONE: (312) 955-0334

COUNTY	COOK
CITY, TOWNSHIP	ORLAND PARK, T36N
SEC. & 1/4 SEC. NO.	SEC. 04, R12E

DESCRIPTION: SEE SHEET GN FOR BENCHMARK INFORMATION

**SPACECO, INC. IS TO BE NOTIFIED AT LEAST
THREE (3) DAYS PRIOR TO STARTING CONSTRUCTION
AND SHALL BE INCLUDED IN THE PRECONSTRUCTION MEETINGS**

SHEET #	SHEET I.D.	SHEET DESCRIPTION
1	CI	COVER SHEET
2	GN	TYPICAL SECTIONS & GENERAL NOTES
3	ET	EXISTING CONDITIONS
4	DEMO	DEMOLITION PLAN
5	GM	GEOMETRIC PLAN
6	GR	GRADING PLAN
7	UT	UTILITY PLAN
8-10	SEI-SE3	SOIL EROSION & SEDIMENT CONTROL PLANS
11	MM	MAINTENANCE & MONITORING PLAN
12	MWRD	MWRD GENERAL NOTES
13	S1	SPECIFICATIONS
14-15	DI-D2	DETAILS

16	E0.0	ELECTRICAL NOTES, LEGEND & ABBREVIATIONS
17	E1.0	ELECTRICAL SITE LIGHTING PLAN


DOWNTOWN ORLAND PARK PARCEL H

ORLAND PARK, ILLINOIS 60462

PROJECT NO: 4278.16

"To the best of our knowledge and belief, the drainage of surface waters will not be changed by the construction of this development, and therefore, there will be no adverse effects. If changed, reasonable provisions have been made for collection and diversion of such surface waters into public areas, or drains to the sea, for the city. The drainage of surface waters are planned for in accordance with generally accepted engineering practices so as to reduce the likelihood of damage to the development. The development shall not adversely increase the peak flow, duration, or volume of the drainage capacity upstream or downstream the project area.

the project area."



REGISTERED PROFESSIONAL ENGINEER
MICHAEL MONDUS, P.E.

ILLINOIS REGISTRATION NO.: 062-052057
EXPIRATION DATE: 11/30/2025

PROFESSIONAL DESIGN FIRM NO.: 184-001157
EXPIRATION DATE: 04/30/2027

ENGINEERING INSPECTOR: (708) 403-5003
PUBLIC WORKS UTILITIES: (708) 403-6350

ORIGINAL PLAN DATE: FEBRUARY 7, 2025

[illegible]

(SIGNATURE FOR CIVIL PLANS ONLY)

THESE PLANS OR ANY PART THEREOF SHALL BE CONSIDERED VOID WITHOUT THE SIGNATURE, SEAL, AND EXPIRATION DATE OF SEAL OF THE ENGINEER.



**DOWNTOWN ORLAND PARK
PARCEL H
ORLAND PARK, ILLINOIS**

Rosemont Office
9575 W. Higgins Road, Suite 700
Rosemont, Illinois 60018
Phone: (847) 696-4060

paceco
Civil Engineering & Surveying
Rosemont, IL - Morris, IL - Indianapolis, IN



spacecoin.com

FILENAME:
427016TITLE.DCM

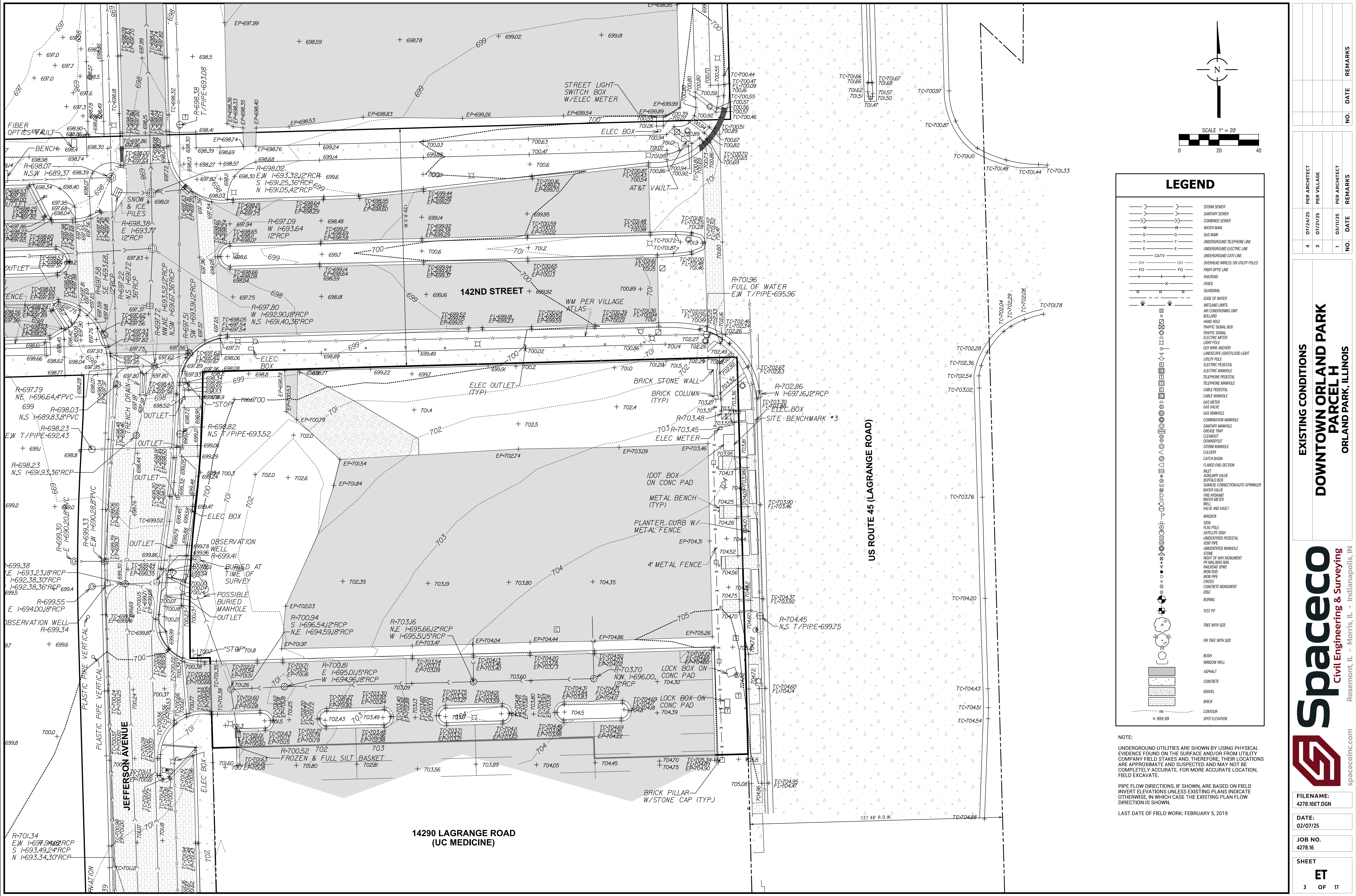
DATE:
02/07/25

JOB NO.
4278.16

SHEET

C1

1 OF 17



LEGEND

	STORM SEWER
	SANITARY SEWER
	COMBINED SEWER
	WATER MAIN
	GAS MAIN
	UNDERGROUND TELEPHONE LINE
	UNDERGROUND ELECTRIC LINE
	UNDERGROUND CITY LINE
	OVERHEAD WIRES ON UTILITY POLES
	FIBER OPTIC LINE
	RAILROAD
	FENCE
	GUARDRAIL
	EDGE OF WATER
	WETLAND LIMITS
	AIR CONDITIONING UNIT
	ROLLUP
	HAND HOLE
	TRAFFIC SIGNAL BOX
	TRAFFIC SIGNAL
	ELECTRIC METER
	LIGHT POLE
	GUY WIRE ANCHOR
	LANDSCAPE LIGHT/FLOOD LIGHT
	UTILITY POLE
	ELECTRIC PEDESTAL
	TELEPHONE PEDESTAL
	CABLE PEDESTAL
	CABLE MANHOLE
	GAS MANHOLE
	GAS VALVE
	GAS MANHOLE
	COMBINATION MANHOLE
	SANITARY MANHOLE
	GREASE TRAP
	CLEANOUT
	DOWNSPOUT
	STORM MANHOLE
	CULVERT
	CATCH BASIN
	FLARED END SECTION
	INLET
	AUXILIARY VALVE
	BUFFALO BOX
	SUMP CONNECTION/AUTO SPRINKLER
	WATER VALVE
	FIRE HYDRANT
	WATER METER
	WELL
	VALVE AND VAULT
	MANHOLE
	SIGN
	FLAG POLE
	SATELLITE DISH
	UNDERSIZED PEDESTAL
	VENT PIPE
	UNDERSIZED MANHOLE
	STONE
	RIGHT OF WAY MONUMENT
	PAVING NAIL
	RAILROAD SPIKE
	IRON ROD
	IRON PIPE
	CROSS
	CONCRETE MONUMENT
	DISC
	BORING
	TEST PIT
	TREE WITH SIZE
	FIR TREE WITH SIZE
	BUSH
	WINDOW WELL
	ASPHALT
	CONCRETE
	GRAVEL
	BRICK
	CONTOUR
	SPOT ELEVATION

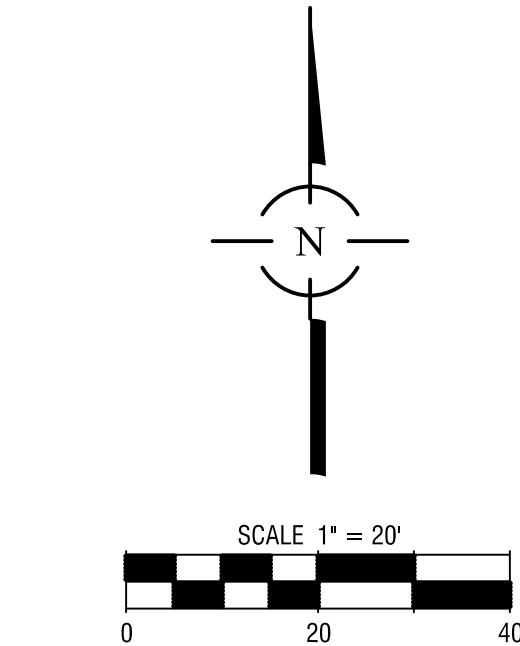
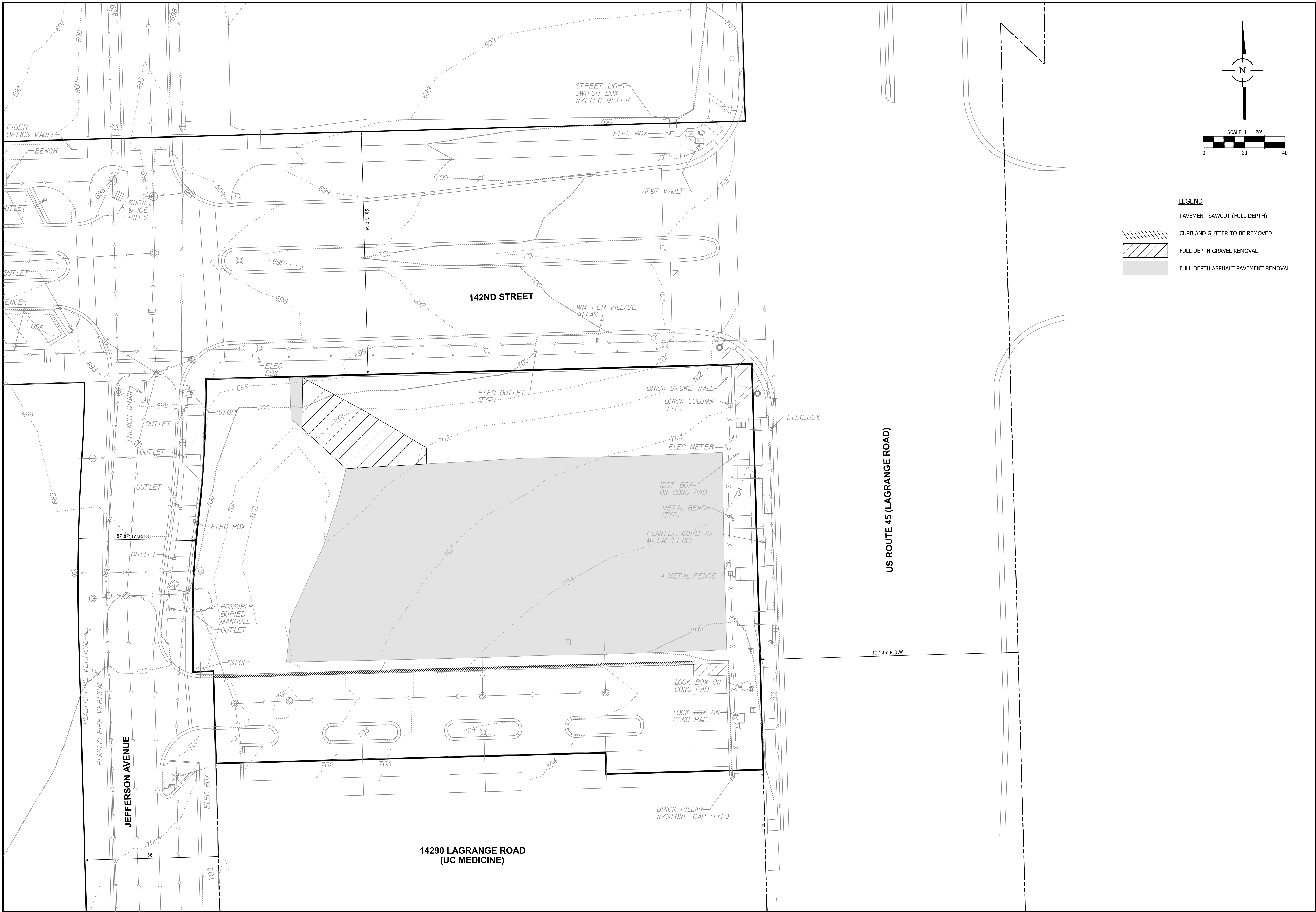
NOTE:
UNDERGROUND UTILITIES ARE SHOWN BY USING PHYSICAL EVIDENCE FOUND ON THE SURFACE AND/OR FROM UTILITY COMPANY FIELD STAKES AND, THEREFORE, THEIR LOCATIONS ARE APPROXIMATE AND SUSPECTED AND MAY NOT BE COMPLETELY ACCURATE. FOR MORE ACCURATE LOCATION, FIELD EXCAVATE.
PIPE FLOW DIRECTIONS, IF SHOWN, ARE BASED ON FIELD INVERT ELEVATIONS UNLESS EXISTING PLANS INDICATE OTHERWISE, IN WHICH CASE THE EXISTING PLAN FLOW DIRECTION IS SHOWN.
LAST DATE OF FIELD WORK: FEBRUARY 5, 2019

EXISTING CONDITIONS
DOWNTOWN ORLAND PARK
PARCEL H
ORLAND PARK, ILLINOIS

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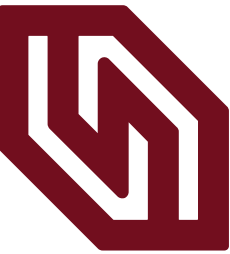
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DATE:	02/07/25
JOB NO.	4278.16
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3 OF 17	

NO.	DATE	REMARKS
4	07/24/25	PER ARCHITECT
3	07/21/25	PER VILLAGE
1	03/11/25	PER ARCHITECT



- LEGEND**
- PAVEMENT SAWCUT (FULL DEPTH)
 - //// CURB AND GUTTER TO BE REMOVED
 - /// FULL DEPTH GRAVEL REMOVAL
 - FULL DEPTH ASPHALT PAVEMENT REMOVAL

DEMOLITION PLAN
DOWNTOWN ORLAND PARK
PARCEL H
ORLAND PARK, ILLINOIS



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FILENAME:
4278.16DEMO.DGN

DATE:
02/07/25

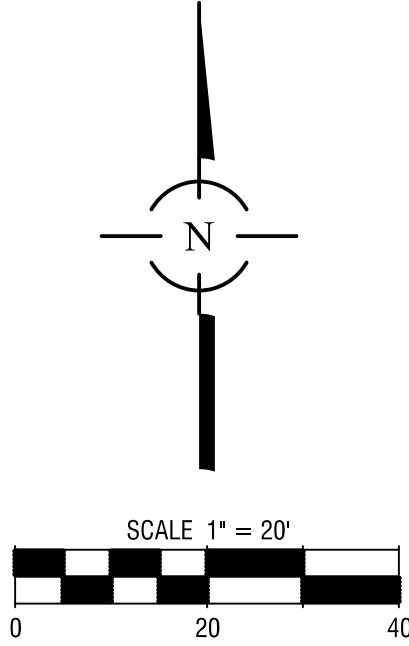
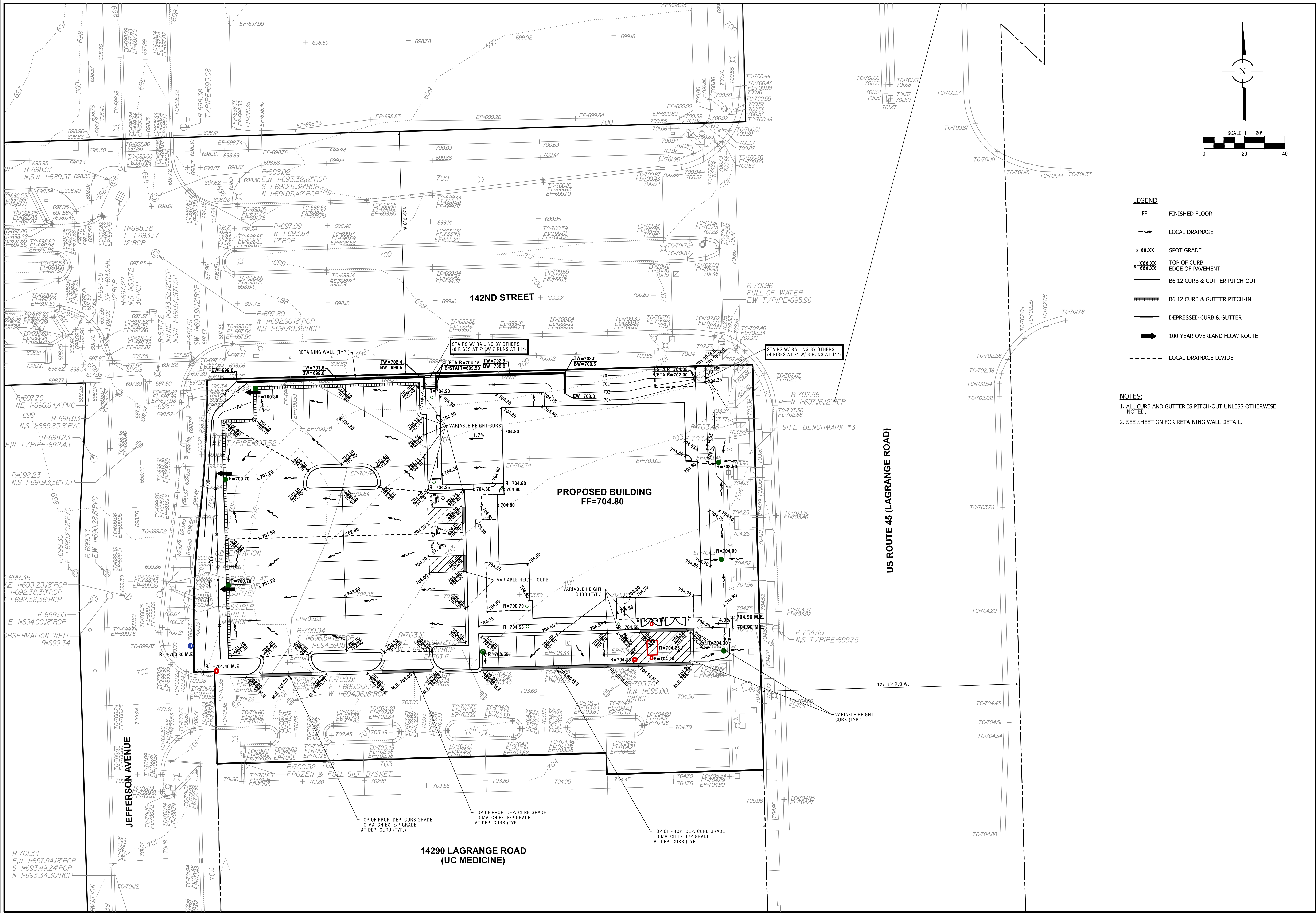
JOB NO.
4278.16

SHEET
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4 OF 17

PER ARCHITECT		PER ARCHITECT		PER ARCHITECT	
NO.	DATE	REMARKS	NO.	DATE	REMARKS
4	07/24/25		3	07/21/25	
1	03/11/25				

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- LEGEND**
- FF FINISHED FLOOR
 - LOCAL DRAINAGE
 - x XX.XX SPOT GRADE
 - x XXX.XX TOP OF CURB
EDGE OF PAVEMENT
 - B6.12 CURB & GUTTER PITCH-OUT
 - B6.12 CURB & GUTTER PITCH-IN
 - DEPRESSED CURB & GUTTER
 - 100-YEAR OVERLAND FLOW ROUTE
 - LOCAL DRAINAGE DIVIDE

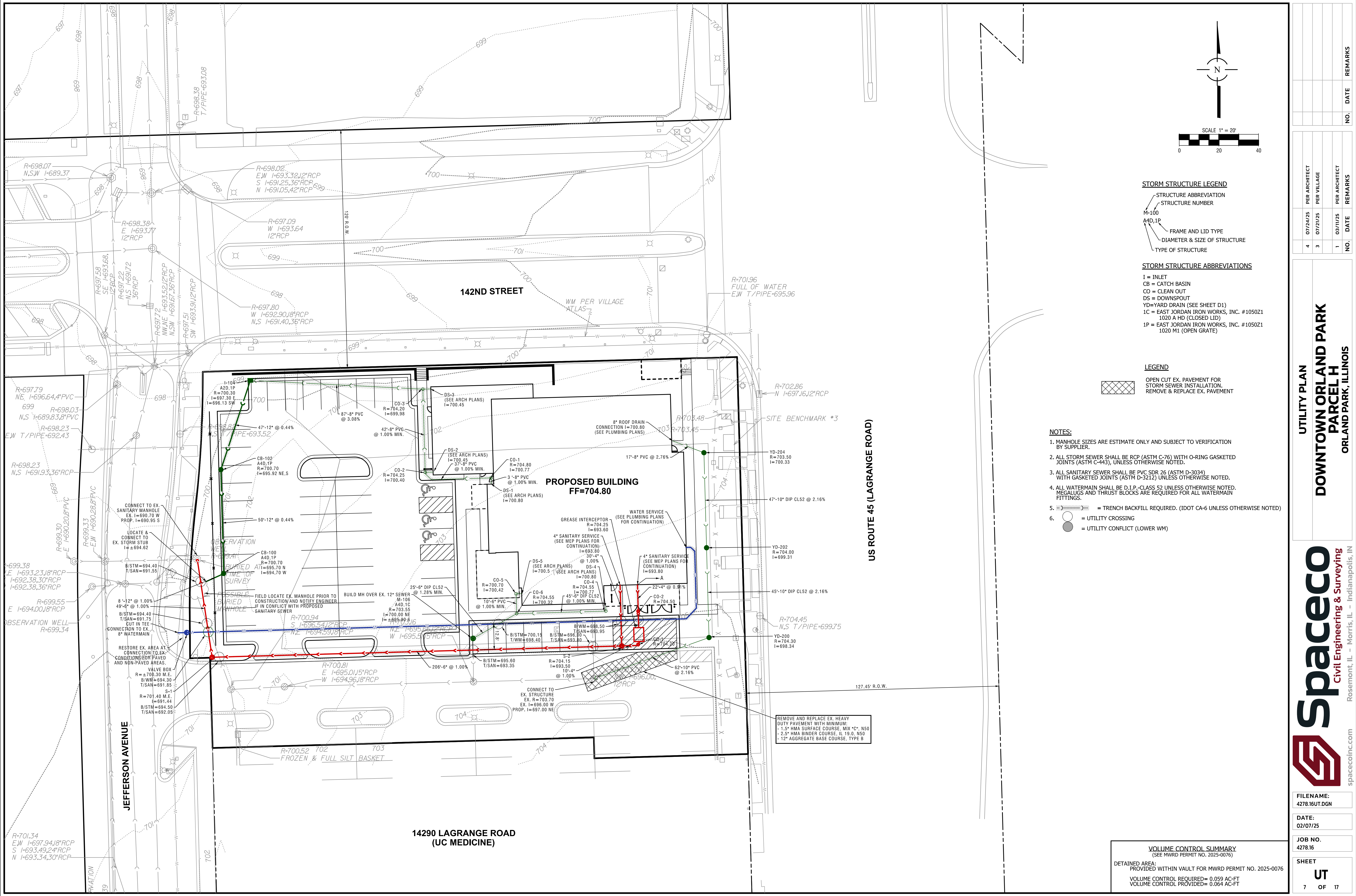
- NOTES:**
1. ALL CURB AND GUTTER IS PITCH-OUT UNLESS OTHERWISE NOTED.
 2. SEE SHEET GN FOR RETAINING WALL DETAIL.

GRADING PLAN
DOWNTOWN ORLAND PARK
PARCEL H
ORLAND PARK, ILLINOIS

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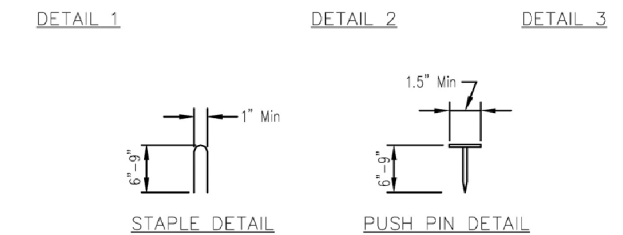
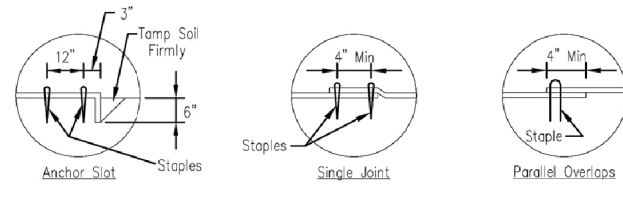
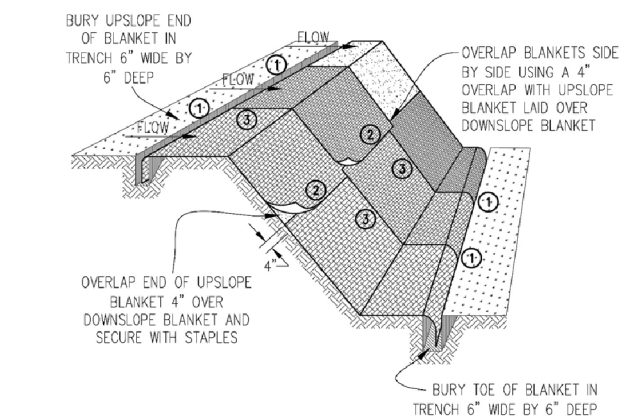
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DATE:	02/07/25
JOB NO.	4278.16
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6 OF 17	

NO.	DATE	REMARKS
4	07/24/25	PER ARCHITECT
3	07/21/25	PER VILLAGE
1	03/11/25	PER ARCHITECT



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APPENDICES



- NOTES:
1. Staples shall be placed in a diamond pattern at 2 per sq. yd. for silted blankets. Non-silted shall use 4 staples per sq. yd. of material. This requires 200 staples with silted blanket and 400 staples with non-silted blanket per 100 sq. yd. of material.
 2. Staple or push pin lengths shall be selected based on soil type and conditions. (minimum staple length is 6")
 3. Erosion control material shall be placed in contact with the soil over a prepared seedbed.
 4. All anchor stakes shall be spaced at approximately 12" intervals.

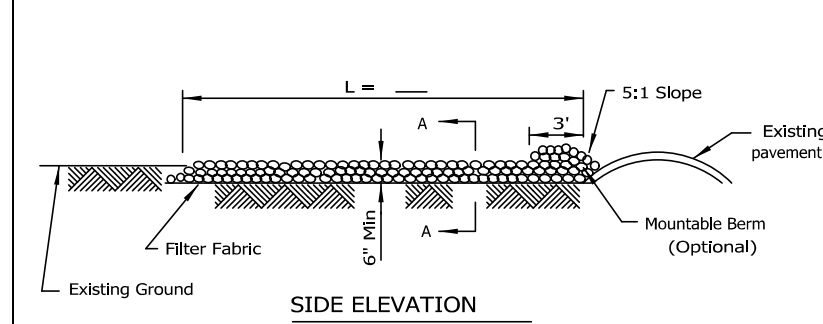
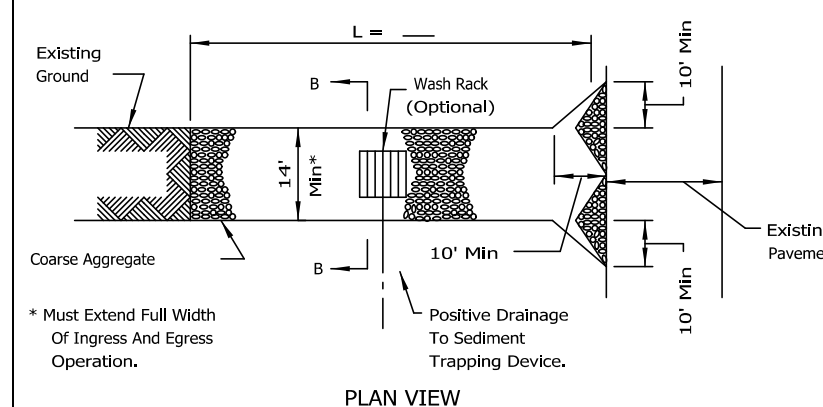
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PROJECT NO.	DATE	BY	CHECKED	APPROVED

EROSION CONTROL
BLANKET INSTALLATION DETAILS

PROJECT NO.	DATE	BY	CHECKED	APPROVED

STABILIZED CONSTRUCTION ENTRANCE PLAN



- NOTES:
1. Filter fabric shall meet the requirements of material specification 592 GEOTEXTILE, Table 1 or 2, Class 1 or 2, and shall be placed over the cleared area prior to the placing of rock.
 2. Rock or reclaimed concrete shall meet one of the following DOT coarse aggregate gradations: C&1, C&2, C&3 or C&4 and be placed according to construction specification 25 ROCKFILL using placement Method 1 and Class 1 collection.
 3. Any drainage facilities required because of washing shall be constructed according to manufacturers specifications.
 4. If wash racks are used they shall be installed according to the manufacturer's specifications.

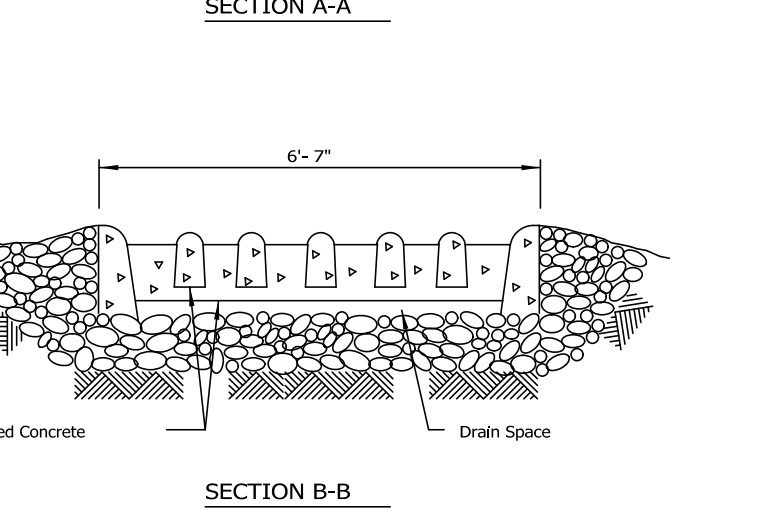
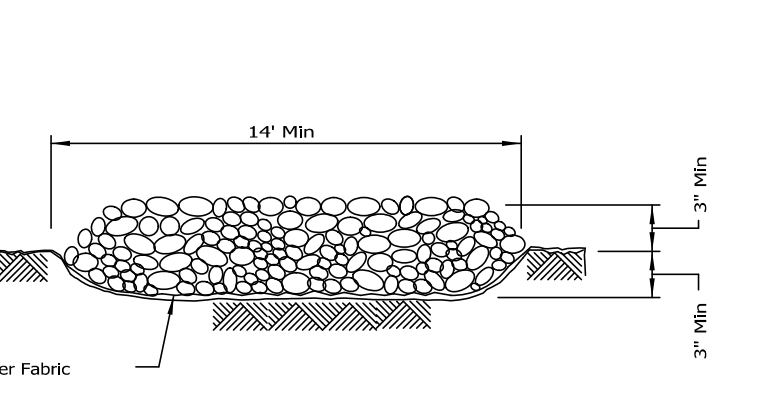
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REFERENCE	PROJECT NO.	DATE	BY	CHECKED	APPROVED

STANDARD CIVIL NO. **IL-630**
REVISED 1 OF 2
DATE: 8-10-04

NRCS
National Resource Conservation Service

STABILIZED CONSTRUCTION ENTRANCE PLAN



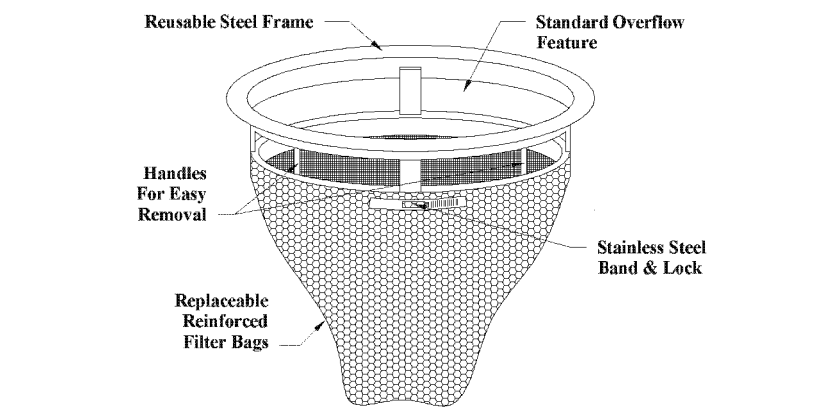
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REFERENCE	PROJECT NO.	DATE	BY	CHECKED	APPROVED

STANDARD CIVIL NO. **IL-630**
REVISED 1 OF 2
DATE: 8-10-04

NRCS
National Resource Conservation Service

Catch-All is a manufactured inlet filtration device designed to significantly reduce the ingress of pollutants into stormwater systems, and therefore, improve water quality. Designs are available for a custom fit in virtually any drainage structure casting.

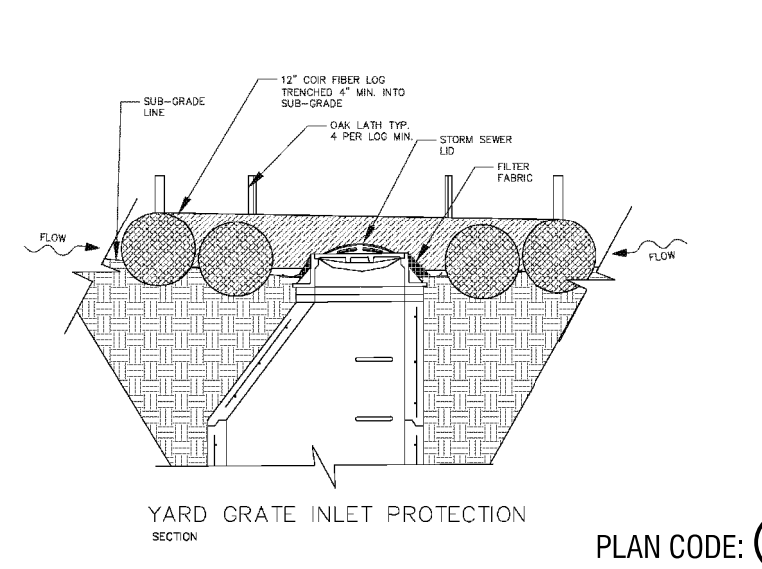
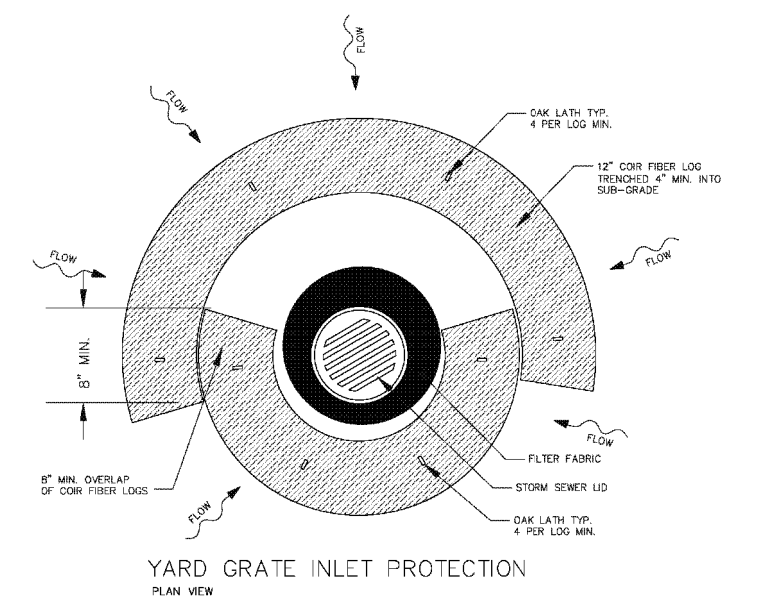


Catch-All HR is available to provide the added benefit of hydrocarbon removal.

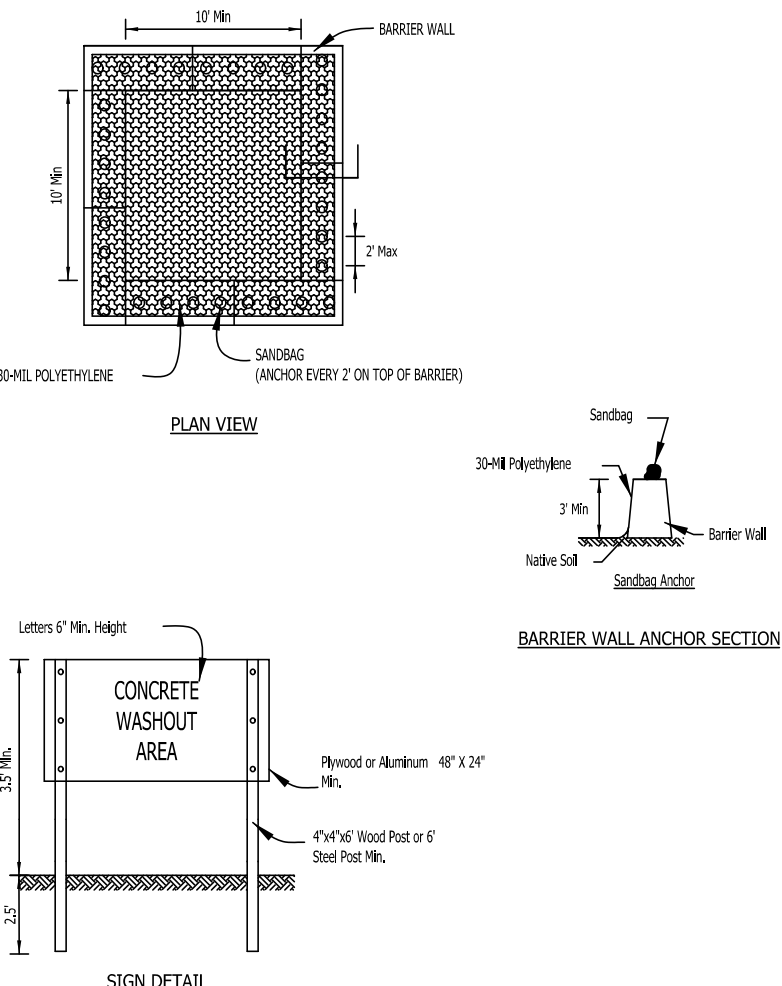
- Design Benefits
1. Pollution Prevention
 - Sediment Control
 2. Pollution Removal
 - Hydrocarbons (Catch-All HR)
 - Total Suspended Sediment
 - Phenolene*
 - Nitrogen*
 - Heavy Metals*
 - By virtue of sediment control

- Applications
1. Site Development & Highway Construction
 - Inlet Protection / Sediment Control
 2. Permanent BMP
 - Maintenance Yards
 - Wash Bays
 - Parking Lots & Garages
 - Airports - Tarmacs, Cab/Limo Stands, Rental Returns
 - Bank/Food Drive-Up
 - Reduce Maintenance of Underground Detection Systems
 - Reduce Maintenance of Underground Oil/Water Separators

PLAN CODE: **IP**



PLAN CODE: **FF**



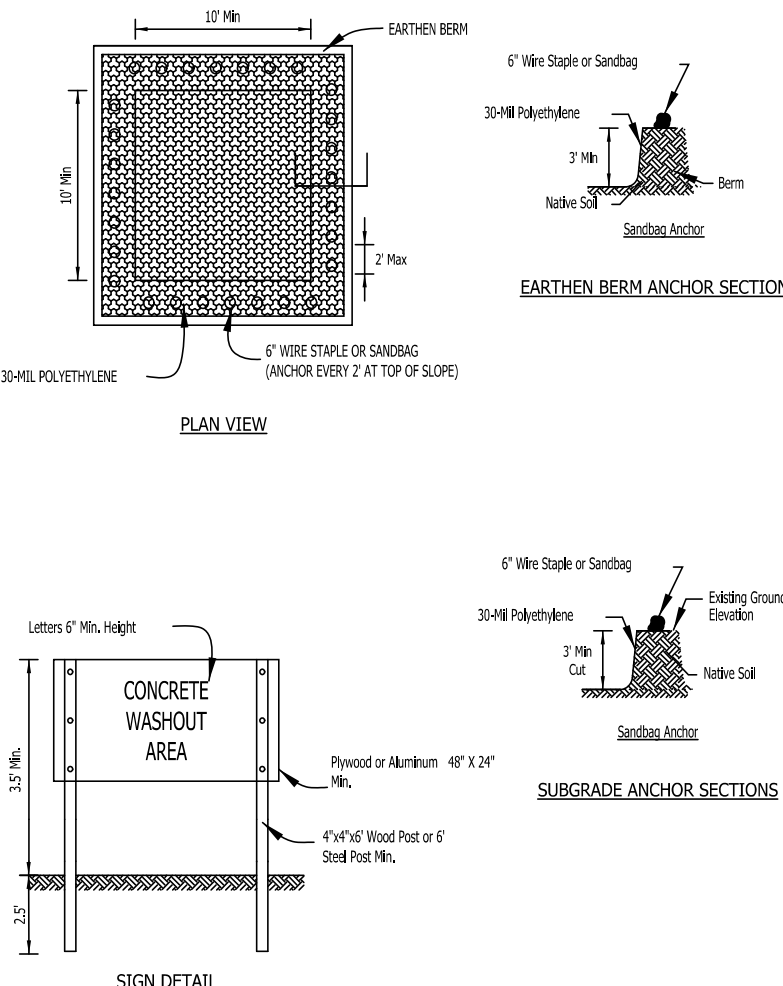
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REFERENCE	PROJECT NO.	DATE	BY	CHECKED	APPROVED

STANDARD CIVIL NO. **IL-630**
REVISED 1 OF 2
DATE: 8-10-04

NRCS
National Resource Conservation Service

TEMPORARY CONCRETE
WASHOUT FACILITY - BARRIER WALL



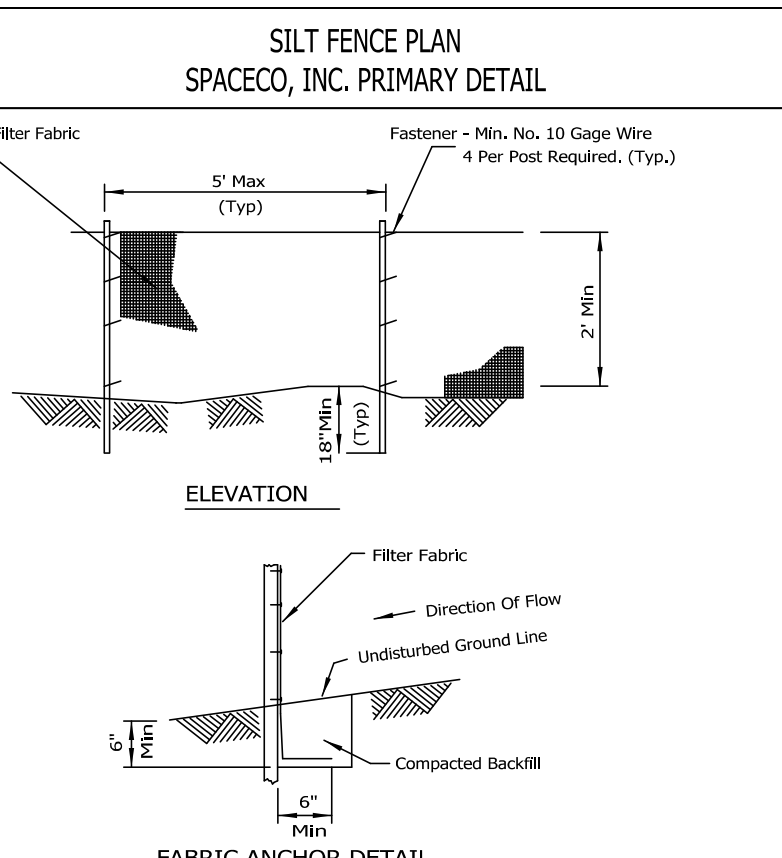
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REFERENCE	PROJECT NO.	DATE	BY	CHECKED	APPROVED

STANDARD CIVIL NO. **IL-630**
REVISED 1 OF 2
DATE: 8-10-04

NRCS
National Resource Conservation Service

TEMPORARY CONCRETE
WASHOUT FACILITY - EARTHEN TYPE



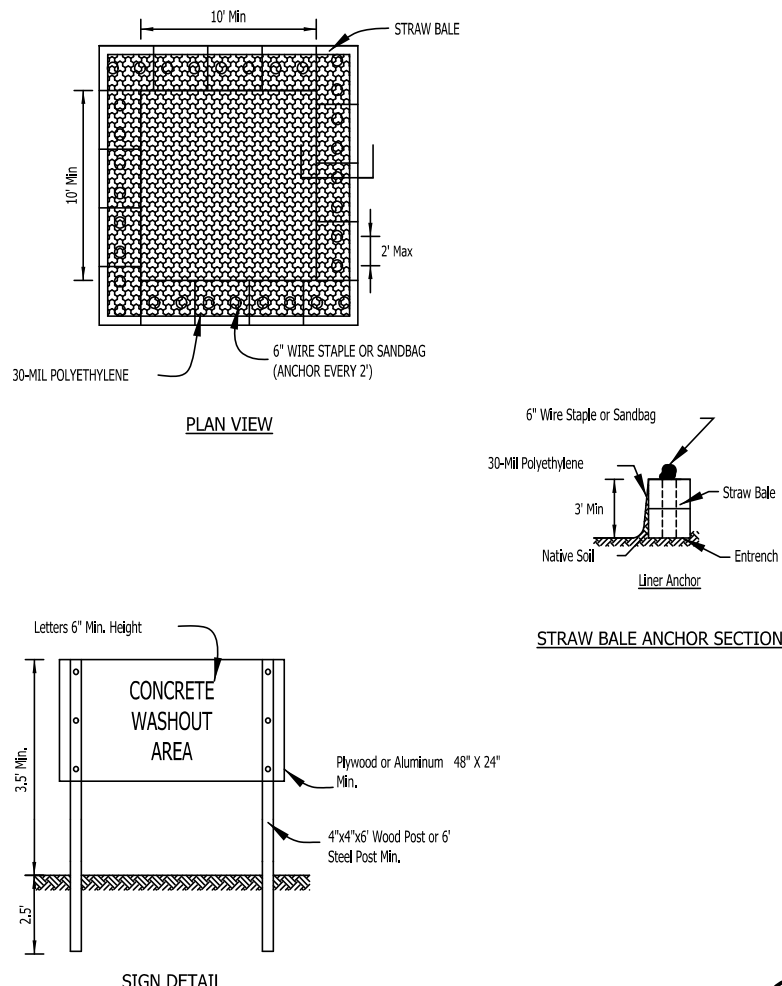
- NOTES:
1. Temporary sediment fence shall be installed prior to any grading work in the area to be protected. They shall be maintained throughout the construction period and removed in conjunction with the final grading and site stabilization.
 2. Filter fabric shall meet the requirements of material specification 592 GEOTEXTILE, Table 1 or 2, Class 1 or 2, with equivalent opening size of at least 30 for nonwoven and 40 for woven.
 3. Fence posts shall be either standard steel post or wood post with a minimum cross-sectional area of 3.0 sq. in.

PLAN CODE: **XX**

REFERENCE	PROJECT NO.	DATE	BY	CHECKED	APPROVED

STANDARD CIVIL NO. **IL-630**
REVISED 1 OF 2
DATE: 8-10-04

NRCS
National Resource Conservation Service



PLAN CODE: **CW**

REFERENCE	PROJECT NO.	DATE	BY	CHECKED	APPROVED

STANDARD CIVIL NO. **IL-630**
REVISED 1 OF 2
DATE: 8-10-04

NRCS
National Resource Conservation Service

TEMPORARY CONCRETE
WASHOUT FACILITY - STRAW BALE

SOIL EROSION & SEDIMENT CONTROL PLAN - 2

DOWNTOWN ORLAND PARK

PARCEL H

ORLAND PARK, ILLINOIS

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FILENAME:
4278.16SE2.DGN

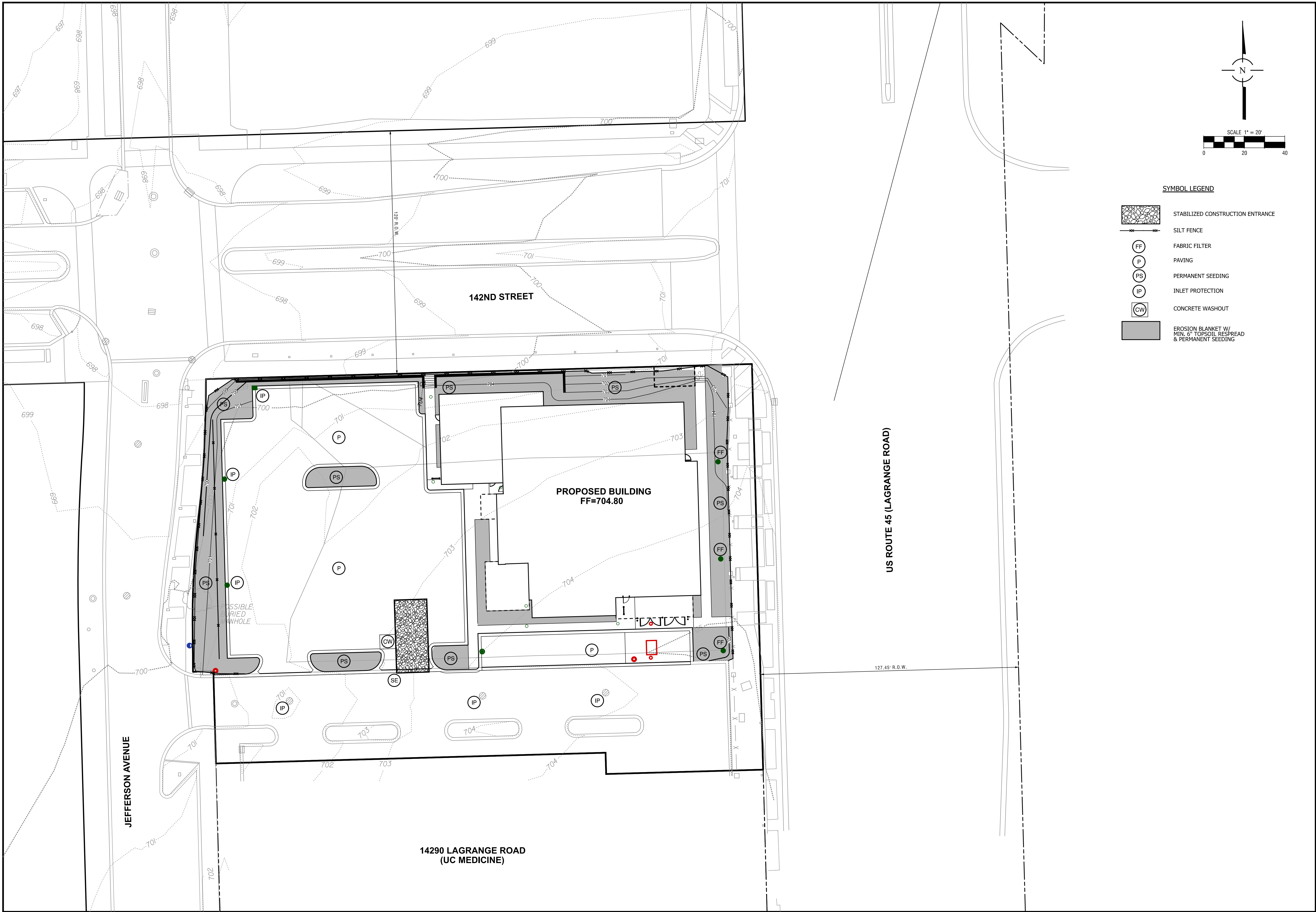
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02/07/25

JOB NO.
4278.16

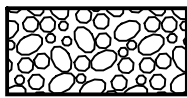
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SE2
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NO.	DATE	REMARKS
4	07/24/25	PER ARCHITECT
3	07/21/25	PER VILLAGE
1	03/17/25	PER ARCHITECT

NO.	DATE	REMARKS
4	07/24/25	PER ARCHITECT
3	07/21/25	PER VILLAGE
1	03/17/25	PER ARCHITECT



SYMBOL LEGEND



STABILIZED CONSTRUCTION ENTRANCE



SILT FENCE

FF

FABRIC FILTER

P

PAVING

PS

PERMANENT SEEDING

IP

INLET PROTECTION

CW

CONCRETE WASHOUT



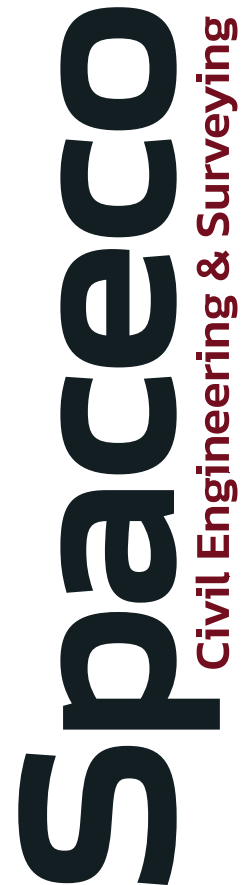
EROSION BLANKET W/
MIN. 6" TOPSOIL RESREAD
& PERMANENT SEEDING

SOIL EROSION & SEDIMENT CONTROL PLAN - 3

DOWNTOWN ORLAND PARK

PARCEL H

ORLAND PARK, ILLINOIS



Civil Engineering & Surveying

Rosemont, IL - Morris, IL - Indianapolis, IN



FILENAME:
4278.16SE3.DGN

DATE:
02/07/25

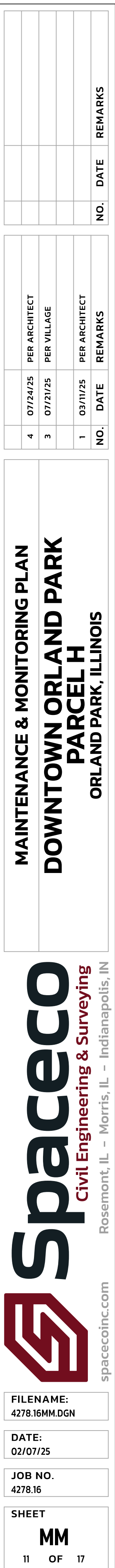
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4278.16

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SE3

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NO.	DATE	REMARKS
4	07/24/25	PER ARCHITECT
3	07/21/25	PER VILLAGE
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NO.	DATE	REMARKS



D. SANITARY SEWER

1. THE CONTRACTOR SHALL TAKE MEASURES TO PREVENT ANY POLLUTED WATER, SUCH AS GROUND AND SURFACE WATER, FROM ENTERING THE EXISTING SANITARY SEWERS.
2. A WATER-TIGHT PLUG SHALL BE INSTALLED IN THE DOWNSTREAM SEWER PIPE AT THE POINT OF SEWER CONNECTION PRIOR TO COMMENCING ANY SEWER CONSTRUCTION. THE PLUG SHALL REMAIN IN PLACE UNTIL REMOVAL IS AUTHORIZED BY THE MUNICIPALITY AND/OR MWRD AFTER THE SEWERS HAVE BEEN TESTED AND ACCEPTED.
3. DISCHARGING ANY UNPOLLUTED WATER INTO THE SANITARY SEWER SYSTEM FOR THE PURPOSE OF SEWER FLUSHING OF LINES FOR THE DEFLECTION TEST SHALL BE PROHIBITED WITHOUT PRIOR APPROVAL FROM THE MUNICIPALITY OR MWRD.
4. ALL SANITARY SEWER CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS (LATEST EDITION).
5. ALL FLOOR DRAINS SHALL DISCHARGE TO THE SANITARY SEWER SYSTEM.
6. ALL DOWNSPOUTS AND FOOTING DRAINS SHALL DISCHARGE TO THE STORM SEWER SYSTEM.
7. ALL SANITARY SEWER PIPE MATERIALS AND JOINTS (AND STORM SEWER PIPE MATERIALS AND JOINTS IN A COMBINED SEWER AREA) SHALL CONFORM TO THE FOLLOWING:

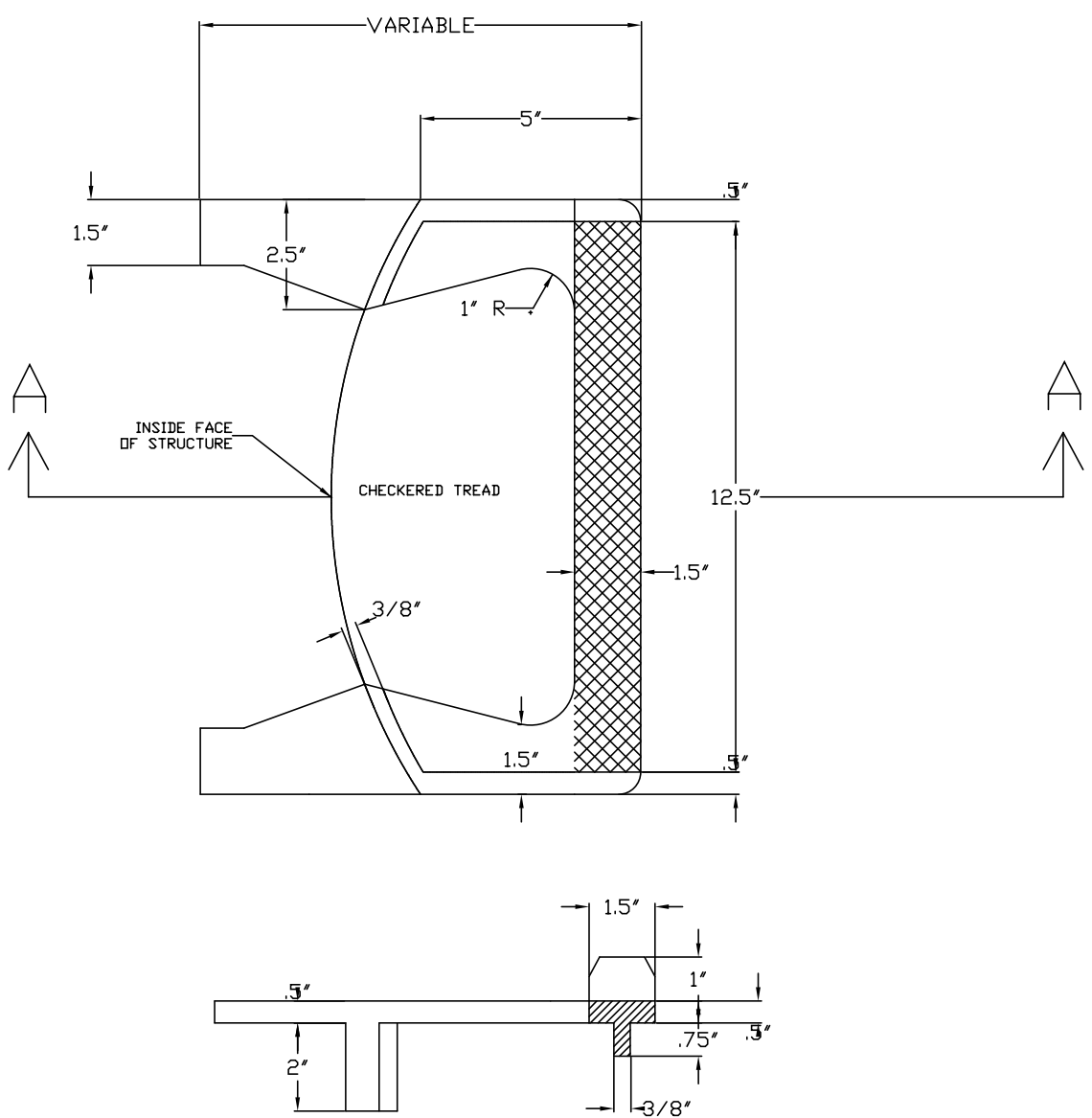
PIPE MATERIAL	PIPE SPECIFICATIONS	JOINT SPECIFICATIONS
POLYPROPYLENE (PP) PIPE		
12-INCH TO 24-INCH DOUBLE WALL	ASTM F-2736	D-3212, F-477
30-INCH TO 60-INCH TRIPLE WALL	ASTM F-2764	D3212, F-477

11. ALL SANITARY SEWER CONSTRUCTION (AND STORM SEWER CONSTRUCTION IN COMBINED SEWER AREAS), REQUIRES STONE BEDDING WITH STONE ¾ " TO 1" IN SIZE, WITH MINIMUM BEDDING THICKNESS EQUAL TO ¼ THE OUTSIDE DIAMETER OF THE SEWER PIPE, BUT NOT LESS THAN FOUR (4) INCHES NOR MORE THAN EIGHT (8) INCHES. MATERIAL SHALL BE CA-7, CA-11 OR CA-13 AND SHALL BE EXTENDED AT LEAST 12" ABOVE THE TOP OF THE PIPE WHEN USING PVC.
12. NON-SHEAR FLEXIBLE-TYPE COUPLINGS SHALL BE USED IN THE CONNECTION OF SEWER PIPES OF DISSIMILAR PIPE MATERIALS.
13. ALL MANHOLES SHALL BE PROVIDED WITH BOLTED, WATERTIGHT COVERS. SANITARY LIDS SHALL BE CONSTRUCTED WITH A CONCEALED PICKHOLE AND WATERTIGHT GASKET WITH THE WORD "SANITARY" CAST INTO THE LID.
14. WHEN CONNECTING TO AN EXISTING SEWER MAIN BY MEANS OTHER THAN AN EXISTING WYE, TEE, OR AN EXISTING MANHOLE, ONE OF THE FOLLOWING METHODS SHALL BE USED:
 - a) A CIRCULAR SAW-CUT OF SEWER MAIN BY PROPER TOOLS ("SHEWER-TAP" MACHINE OR SIMILAR) AND PROPER INSTALLATION OF HUBWYE SADDLE OR HUB-TEE SADDLE.
 - b) REMOVE AN ENTIRE SECTION OF PIPE (BREAKING ONLY THE TOP OF ONE BELL) AND REPLACE WITH A WYE OR TEE BRANCH SECTION.
 - c) WITH PIPE CUTTER, NEATLY AND ACCURATELY CUT OUT DESIRED LENGTH OF PIPE FOR INSERTION OF PROPER FITTING, USING "BAND SEAL" OR SIMILAR COUPLINGS TO HOLD IT FIRMLY IN PLACE.
15. WHENEVER A SANITARY/COMBINED SEWER CROSSES UNDER A WATERMAIN, THE MINIMUM VERTICAL DISTANCE FROM THE TOP OF THE SEWER TO THE BOTTOM OF THE WATERMAIN SHALL BE 18 INCHES. FURTHERMORE, A MINIMUM HORIZONTAL DISTANCE OF 10 FEET BETWEEN SANITARY/COMBINED SEWERS AND WATERMAINS SHALL BE MAINTAINED UNLESS: THE SEWER IS LAID IN A SEPARATE TRENCH, KEEPING A MINIMUM 18" VERTICAL SEPARATION; OR THE SEWER IS LAID IN THE SAME TRENCH, WITH THE WATERMAIN LOCATED AT THE OPPOSITE SIDE ON A BENCH OF UNDISTURBED EARTH, KEEPING A MINIMUM 18" VERTICAL SEPARATION; IF EITHER THE VERTICAL OR HORIZONTAL DISTANCE IS DECREASED, THE SEWER SHALL BE ENCASED, OR THE SEWER CROSSES ABOVE THE WATER MAIN, THE SEWER SHALL BE CONSTRUCTED TO WATER MAIN STANDARDS OR IT SHALL BE ENCASED WITH A WATER MAIN QUALITY CARRIER PIPE WITH THE ENDS SEALED.
16. ALL EXISTING SEPTIC SYSTEMS SHALL BE ABANDONED. ABANDONED TANKS SHALL BE FILLED WITH GRANULAR MATERIAL OR REMOVED.
17. ALL SANITARY MANHOLES, (AND STORM MANHOLES IN COMBINED SEWER AREAS), SHALL HAVE A MINIMUM INSIDE DIAMETER OF 48 INCHES, AND SHALL BE CAST IN PLACE OR PRE-CAST REINFORCED CONCRETE.
18. ALL SANITARY MANHOLES, (AND STORM MANHOLES IN COMBINED SEWER AREAS), SHALL HAVE PRECAST "RUBBER BOOTS" THAT CONFORM TO ASTM C-923 FOR ALL PIPE CONNECTIONS. PRECAST SECTIONS SHALL CONSIST OF MODIFIED GROOVE TONGUE AND RUBBER GASKET TYPE JOINTS.
19. ALL ABANDONED SANITARY SEWERS SHALL BE PLUGGED AT BOTH ENDS WITH AT LEAST 2 FEET LONG NON-SHRINK CONCRETE OR MORTAR PLUG.
20. EXCEPT FOR FOUNDATION/FOOTING DRAINS PROVIDED TO PROTECT BUILDINGS, OR PERFORATED PIPES ASSOCIATED WITH VOLUME CONTROL FACILITIES, DRAIN TILES/FIELD TILES/UNDERDRAINS/PERFORATED PIPES ARE NOT TO BE CONNECTED TO OR TRIBUTARY TO COMBINED SEWERS, SANITARY SEWERS, OR STORM SEWERS TRIBUTARY TO COMBINED SEWERS IN COMBINED SEWER AREAS. CONSTRUCTION OF NEW FACILITIES OF THIS TYPE IS PROHIBITED; AND ALL EXISTING DRAIN TILES AND PERFORATED PIPES ENCOUNTERED WITHIN THE PROJECT AREA SHALL BE PLUGGED OR REMOVED, AND SHALL NOT BE CONNECTED TO COMBINED SEWERS, SANITARY SEWERS, OR STORM SEWERS TRIBUTARY TO COMBINED SEWERS.
21. A BACKFLOW PREVENTER IS REQUIRED FOR ALL DETENTION BASINS TRIBUTARY TO COMBINED SEWERS. REQUIRED BACKFLOW PREVENTERS SHALL BE INSPECTED AND EXERCISED ANNUALLY BY THE PROPERTY OWNER TO ENSURE PROPER OPERATION, AND ANY NECESSARY MAINTENANCES SHALL BE PERFORMED TO PREVENT THE OPERATION OF A SEWER SURCHARGE INTO AN OPEN DETENTION BASIN TRIBUTARY TO COMBINED SEWERS. THE PERMITTEE SHALL ENSURE THAT CLEAN UP AND WASH OUT OF SEWAGE TAKES PLACE WITHIN 48 HOURS OF THE STORM EVENT.

1. THE CONTRACTOR SHALL INSTALL THE EROSION AND SEDIMENT CONTROL PLAN.
2. EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE FUNCTIONAL PRIOR TO HYDROLOGIC DISTURBANCE OF THE SITE.
3. ALL DESIGN CRITERIA, SPECIFICATIONS, AND INSTALLATION OF EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE IN ACCORDANCE WITH THE ILLINOIS URBAN MANUAL.
4. A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN SHALL BE MAINTAINED ON THE SITE AT ALL TIMES.
 - a) INSPECTIONS AND DOCUMENTATION SHALL BE PERFORMED, AT A MINIMUM:
 - a) UPON COMPLETION OF INITIAL EROSION AND SEDIMENT CONTROL MEASURES, PRIOR TO ANY SOIL DISTURBANCE.
 - b) ONCE EVERY SEVEN (7) CALENDAR DAYS AND WITHIN 24 HOURS OF THE END OF A STORM EVENT WITH GREATER THAN 0.5 INCH OF RAINFALL OR LIQUID EQUIVALENT PRECIPITATION.
6. SOIL DISTURBANCE SHALL BE CONDUCTED IN SUCH A MANNER AS TO MINIMIZE EROSION. IF STRIPPING, CLEARING, GRADING, OR LANDSCAPING ARE TO BE DONE IN PHASES, THE CO-PERMITTEE SHALL PLAN FOR APPROPRIATE SOIL EROSION AND SEDIMENT CONTROL MEASURES.
7. A STABILIZED MAT OF CRUSHED STONE MEETING THE STANDARDS OF THE ILLINOIS URBAN MANUAL SHALL BE INSTALLED AT ANY POINT WHERE TRAFFIC WILL BE ENTERING OR LEAVING A CONSTRUCTION SITE. SEDIMENT OR SOIL REACHING AN IMPROVED PUBLIC RIGHT-OF-WAY, STREET, ALLEY OR PARKING AREA SHALL BE REMOVED BY SCRAPING OR STREET CLEANING AS ACCUMULATIONS WARRANT AND TRANSPORTED TO A CONTROLLED SEDIMENT DISPOSAL AREA.
8. CONCRETE WASHOUT FACILITIES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE ILLINOIS URBAN MANUAL AND SHALL BE INSTALLED PRIOR TO ANY ON SITE CONSTRUCTION ACTIVITIES INVOLVING CONCRETE.
9. MORTAR WASHOUT FACILITIES SHALL BE CONSTRUCTED IN ADDITION TO CONCRETE WASHOUT FACILITIES FOR ANY BRICK AND MORTAR BUILDING ENVELOPE CONSTRUCTION ACTIVITIES.
10. TEMPORARY DIVERSIONS SHALL BE CONSTRUCTED AS NECESSARY TO DIRECT ALL RUNOFF FROM HYDROLOGICALLY DISTURBED AREAS TO AN APPROPRIATE SEDIMENT TRAP OR BASIN. VOLUME CONTROL FACILITIES SHALL NOT BE USED AS TEMPORARY SEDIMENT BASINS.
11. DISTURBED AREAS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED SHALL BE STABILIZED WITH TEMPORARY OR PERMANENT MEASURES WITHIN SEVEN (7) DAYS.
12. ALL FLOOD PROTECTION AREAS AND VOLUME CONTROL FACILITIES SHALL, AT A MINIMUM, BE PROTECTED WITH A DOUBLE-ROW OF SILT FENCE (OR EQUIVALENT).
13. VOLUME CONTROL FACILITIES SHALL NOT BE CONSTRUCTED UNTIL ALL OF THE CONTRIBUTING DRAINAGE AREA HAS BEEN STABILIZED.
14. SOIL STOCKPILES SHALL, AT A MINIMUM, BE PROTECTED WITH PERIMETER SEDIMENT CONTROLS. SOIL STOCKPILES SHALL NOT BE PLACED IN FLOOD PROTECTION AREAS OR THEIR BUFFERS.
15. EARTHEN EMBANKMENT SIDE SLOPES SHALL BE STABILIZED WITH APPROPRIATE EROSION CONTROL BLANKET.
16. STORM SEWERS THAT ARE OR WILL BE FUNCTIONING DURING CONSTRUCTION SHALL BE PROTECTED BY APPROPRIATE SEDIMENT CONTROL MEASURES.
17. THE CONTRACTOR SHALL EITHER REMOVE OR REPLACE ANY EXISTING DRAIN TILES AND INCORPORATE THEM INTO THE DRAINAGE PLAN FOR THE DEVELOPMENT. DRAIN TILES SHALL NOT BE TRIBUTARY TO A SANITARY OR COMBINED SEWER. DRAIN TILES ALLOWED IN COMBINED SEWER AREA FOR GREEN INFRASTRUCTURE PRACTICES.
18. IF DEWATERING SERVICES ARE USED, ADJOINING PROPERTIES AND DISCHARGE LOCATIONS SHALL BE PROTECTED FROM EROSION AND SEDIMENTATION. DEWATERING SYSTEMS SHOULD BE INSPECTED DAILY DURING OPERATIONAL PERIODS. THE SITE INSPECTOR MUST BE PRESENT AT THE COMMENCEMENT OF DEWATERING ACTIVITIES.
19. THE CONTRACTOR SHALL BE RESPONSIBLE FOR TRENCH DEWATERING AND EXCAVATION FOR THE INSTALLATION OF SANITARY SEWERS, STORM SEWERS, WATERMANS AS WELL AS THEIR SERVICES AND OTHER APPURTENANCES. ANY TRENCH DEWATERING, WHICH CONTAINS SEDIMENT SHALL PASS THROUGH A SEDIMENT SETTLING POND OR EQUALLY EFFECTIVE SEDIMENT CONTROL DEVICE. ALTERNATIVES MAY INCLUDE DEWATERING INTO A SUMP PIT, FILTER BAG OR EXISTING VEGETATED UPSLOPE AREA. SEDIMENT LOADED WATERS SHALL NOT BE DISCHARGE TO WATERWAYS, FLOOD PROTECTION AREAS OR THE COMBINED SEWER SYSTEM.
20. ALL PERMANENT EROSION CONTROL PRACTICES SHALL BE INITIATED WITHIN SEVEN (7) DAYS FOLLOWING THE COMPLETION OF SOIL DISTURBING ACTIVITIES.
21. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE MAINTAINED AND REPAIRED AS NEEDED ON A YEAR-ROUND BASIS DURING CONSTRUCTION AND ANY PERIODS OF CONSTRUCTION SHUTDOWN UNTIL TEMPORARY STABILIZATION IS ACHIEVED.
22. ALL PERMANENT EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED WITHIN THIRTY (30) DAYS AFTER PERMANENT SITE STABILIZATION.
23. THE EROSION AND SEDIMENT CONTROL MEASURES SHOWN ON THE PLANS ARE THE MINIMUM REQUIREMENTS. ADDITIONAL MEASURES MAY BE REQUIRED, AS DIRECTED BY THE ENGINEER, SITE INSPECTOR, OR MWRD.

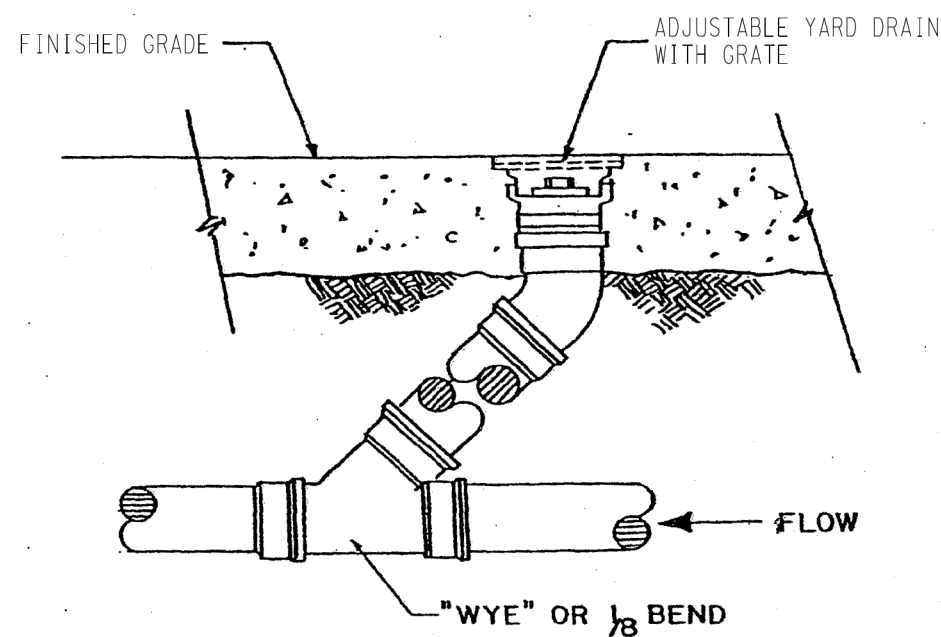
MWRD GENERAL NOTES

EARTHWORK NOTES		PAVING NOTES	SANITARY SEWER NOTES	STORM SEWER NOTES	
1. GENERAL	<p>A. IT IS THE CONTRACTOR'S RESPONSIBILITY TO UNDERSTAND THE SOIL AND GROUNDWATER CONDITIONS AT THE SITE. THE CONTRACTOR SHALL OBTAIN AND READ THE GEOTECHNICAL REPORTS AVAILABLE FROM THE OWNER.</p> <p>B. ANY QUANTITIES IN THE BID PROPOSAL ARE INTENDED AS A GUIDE FOR THE CONTRACTOR'S USE IN DETERMINING THE SCOPE OF THE COMPLETED PROJECT. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE ALL MATERIAL QUANTITIES AND APPRAISE HIMSELF OF ALL SITE CONDITIONS. THE CONTRACT PRICE SUBMITTED BY THE CONTRACTOR SHALL BE CONSIDERED AS LUMP SUM FOR THE COMPLETE PROJECT. NO CLAIMS FOR EXTRA WORK WILL BE RECOGNIZED UNLESS ORDERED IN WRITING BY THE OWNER.</p> <p>C. THE CONTRACTOR WILL NOTE THAT THE ELEVATIONS SHOWN ON THE CONSTRUCTION PLANS ARE FINISHED GRADE ELEVATIONS AND THAT PAVEMENT THICKNESS, TOPSOIL, ETC. MUST BE SUBTRACTED TO DETERMINE SUBGRADE ELEVATIONS.</p> <p>D. THE CONTRACTOR SHALL MAINTAIN POSITIVE DRAINAGE DURING CONSTRUCTION, AND PREVENT STORMWATER FROM RUNNING INTO OR STANDING IN EXCAVATED AREAS. THE FAILURE TO PROVIDE PROPER DRAINAGE WILL NEGATE ANY POSSIBLE ADDED COMPENSATION REQUESTED DUE TO DELAYS OR UNSUITABLE MATERIALS CREATED AS A RESULT THEREOF. FINAL GRADES SHALL BE PROTECTED AGAINST DAMAGE FROM EROSION, SEDIMENTATION AND TRAFFIC.</p> <p>E. PLANS FOR THE SITE Dewatering, IF EMPLOYED, SHALL BE SUBMITTED TO AND APPROVED BY THE OWNER PRIOR TO IMPLEMENTATION. NO ADDITIONAL COMPENSATION SHALL BE MADE FOR Dewatering DURING CONSTRUCTION.</p> <p>F. THE CONTRACTOR SHALL BE RESPONSIBLE FOR IMPLEMENTATION OF THE "SOIL EROSION AND SEDIMENTATION CONTROL MEASURES". THE INITIAL ESTABLISHMENT OF EROSION CONTROL PROCEDURES AND THE PLACEMENT OF SILT AND FILTER FENCING, ETC. TO PROTECT ADJACENT PROPERTY, WETLANDS, ETC. SHALL OCCUR BEFORE GRADING BEGINS. A MUNICIPAL EROSION CONTROL INSPECTION MAY BE REQUIRED BEFORE ANY EARTHWORK IS PERFORMED.</p> <p>G. PRIOR TO COMMENCEMENT OF GRADING ACTIVITIES, THE CONTRACTOR SHALL ERECT A "SNOW FENCE" AROUND ANY TREE DESIGNATED TO BE PRESERVED. SAID FENCE SHALL BE PLACED IN A CIRCLE CENTERED AROUND THE TREE, THE DIAMETER OF WHICH SHALL BE SUCH THAT THE ENTIRE DRIP ZONE (EXTENT OF FURTHEST EXTENDING BRANCHES) SHALL BE WITHIN THE FENCE LIMITS. THE EXISTING GRADE WITHIN THE FENCED AREA SHALL NOT BE DISTURBED.</p> <p>H. EXCESS MATERIALS, IF NOT UTILIZED AS FILL, SHALL BE COMPLETELY REMOVED FROM THE CONSTRUCTION SITE AND DISPOSED OF OFF-SITE BY THE CONTRACTOR.</p> <p>I. ALL EARTHWORK SHALL BE DONE UNDER THE SUPERVISION OF AN ILLINOIS LICENSED ENGINEER WHO SPECIALIZES IN THE GEOTECHNICAL FIELD (SOILS ENGINEER). THIS ENGINEER WILL BE RESPONSIBLE FOR ENSURING THAT ALL UNSUITABLE MATERIALS ARE REMOVED, ALL STRUCTURAL FILL MATERIALS ARE PROPERLY PLACED AND COMPACTED, ALL PAVEMENT SUBGRADES ARE PROPERLY PREPARED, PROOF ROLLING SUBGRADES AND BASE COURSES, AND ENSURING THAT ALL WATER RETAINING EMBANKMENTS ARE PROPERLY CONSTRUCTED. THE DEVELOPER PAYS FOR ALL GEOTECHNICAL SERVICES.</p>	<p>2. SUB-GRADE PREPARATION</p> <p>A. EARTHWORK FOR PROPOSED PAVEMENT SUBGRADE SHALL BE FINISHED TO WITHIN 0.1 FOOT, PLUS OR MINUS, OF PLAN ELEVATION. THE CONTRACTOR SHALL SATISFY HIMSELF THAT THE SUBGRADE HAS BEEN PROPERLY PREPARED AND THAT THE FINISH TOP SUBGRADE ELEVATION HAS BEEN GRADED WITHIN TOLERANCES ALLOWED IN THESE SPECIFICATIONS, UNLESS THE CONTRACTOR ADVISES THE OWNER AND ENGINEER IN WRITING PRIOR TO FINE GRADING FOR BASE COURSE CONSTRUCTION. IT IS UNDERSTOOD THAT HE HAS APPROVED AND ACCEPTS THE RESPONSIBILITY FOR THE SUBGRADE.</p> <p>B. PRIOR TO THE PLACEMENT OF THE BASE COURSE, THE SUBGRADE MUST BE PROOF ROLLED AND INSPECTED FOR UNSUITABLE MATERIALS AND/OR EXCESSIVE MOVEMENT. THE SOILS ENGINEER SHALL CONDUCT AND THE VILLAGE SHALL WITNESS ALL PROOF ROLLS. IF UNSUITABLE SUBGRADE IS ENCOUNTERED, IT SHALL BE CORRECTED IN A MANNER APPROVED BY THE OWNER OR HIS REPRESENTATIVE. THIS MAY INCLUDE ONE OR MORE OF THE FOLLOWING METHODS:</p> <ol style="list-style-type: none">1) SCARIFY DISC AND AERATE.2) REMOVE AND REPLACE WITH STRUCTURAL CLAY FILL.3) REMOVE AND REPLACE WITH GRANULAR MATERIAL.4) USE OF GEOTEXTILE FABRIC. <p>MAXIMUM DEFLECTION ALLOWED IN ISOLATED AREAS MAY BE 1/4" TO 1/2" IF NO DEFLECTION OCCURS OVER THE MAJORITY OF THE AREA.</p> <p>C. PRIOR TO THE CONSTRUCTION OF THE CURB AND GUTTER AND THE PLACEMENT OF THE BASE MATERIAL, THE PAVEMENT AREA SHALL BE FINE GRADED TO WITHIN 0.4 FEET (1/2") OF FINAL SUBGRADE ELEVATION, TO A POINT TWO (2) FEET BEYOND THE BACK OF CURB, SO AS TO INSURE THE PROPER THICKNESS OF PAVEMENT COURSES. NO CLAIMS FOR EXCESS QUANTITY OF BASE MATERIALS DUE TO IMPROPER SUBGRADE PREPARATION WILL BE HONORED.</p> <p>D. PRIOR TO PLACEMENT OF THE BASE COURSE, ALL SUBGRADES MUST BE APPROVED BY THE MUNICIPAL ENGINEER, SOILS ENGINEER AND/OR OWNER.</p>	<p>2. BEDDING:</p> <p>A. BEDDING SHALL CONSIST OF A MINIMUM OF FOUR (4") INCHES OF COMPACTED CRUSHED GRAVEL OR STONE, 1/4" - 3/4" IN SIZE. THE SEWER SHALL HAVE MECHANICALLY TAMPED CRUSHED GRAVEL OR STONE COVER ABOVE THE TOP OF THE PIPE TO A MINIMUM OF TWELVE (12") INCHES FOR PVC PIPE AND TO THE SPRING LINE FOR DIP. THE BEDDING AND COVER MATERIAL SHALL BE ASTM D-2321 CLASS II FOR PVC PIPE AND ASTM D-448 SIZE #7 FOR DIP PIPE. THE COST OF THE BEDDING AND COVER SHALL BE MERGED WITH THE UNIT PRICE BID FOR THE SEWER.</p> <p>B. ALL UNSUITABLE MATERIAL SHALL BE REMOVED BELOW THE PROPOSED SANITARY SEWER AND REPLACED WITH COMPACTED CA-8 CRUSHED GRAVEL OR STONE.</p> <p>C. ALL TRENCHES BENEATH PROPOSED OR EXISTING UTILITIES, PAVEMENTS, ROADWAYS, SIDEWALKS, AND FOR A DISTANCE OF FIVE (5) FEET ON EITHER SIDE OF SAME, AND/OR WHERE SHOWN ON THE PLANS, SHALL BE BACKFILLED WITH SELECT GRANULAR BACKFILL (CA-8) AND THOROUGHLY MECHANICALLY COMPACTED IN 8" THICK (LOOSE MEASUREMENT) LAYERS. JETTING WITH WATER IS NOT PERMITTED. REFER TO THE TRENCH BACKFILL LIMITS DETAIL.</p>	<p>2. BEDDING:</p> <p>A. BEDDING SHALL CONSIST OF A MINIMUM OF FOUR (4") INCHES OF COMPACTED CRUSHED GRAVEL OR STONE, 1/4" - 3/4" IN SIZE. THE SEWER SHALL HAVE MECHANICALLY TAMPED CRUSHED GRAVEL OR STONE COVER ABOVE THE TOP OF THE PIPE TO A MINIMUM OF TWELVE (12") INCHES FOR PVC PIPE AND TO THE SPRING LINE FOR DIP. THE BEDDING AND COVER MATERIAL SHALL BE ASTM D-2321 CLASS II FOR PVC PIPE AND ASTM D-448 SIZE #7 FOR DIP PIPE. THE COST OF THE BEDDING AND COVER SHALL BE MERGED WITH THE UNIT PRICE BID FOR THE SEWER.</p> <p>B. ALL UNSUITABLE MATERIAL SHALL BE REMOVED BELOW THE PROPOSED SANITARY SEWER AND REPLACED WITH COMPACTED CA-8 CRUSHED GRAVEL OR STONE.</p> <p>C. ALL TRENCHES BENEATH PROPOSED OR EXISTING UTILITIES, PAVEMENTS, ROADWAYS, SIDEWALKS, AND FOR A DISTANCE OF FIVE (5) FEET ON EITHER SIDE OF SAME, AND/OR WHERE SHOWN ON THE PLANS, SHALL BE BACKFILLED WITH SELECT GRANULAR BACKFILL (CA-8) AND THOROUGHLY MECHANICALLY COMPACTED IN 8" THICK (LOOSE MEASUREMENT) LAYERS. JETTING WITH WATER IS NOT PERMITTED. REFER TO THE TRENCH BACKFILL LIMITS DETAIL.</p>	<p>2. BEDDING:</p> <p>A. ALL STORM SEWERS SHALL BE INSTALLED ON A TYPE A GRANULAR BEDDING, 1/4" TO 3/4" IN SIZE, (CA-19) WITH A MINIMUM THICKNESS EQUAL TO 1/4 THE OUTSIDE DIAMETER OF THE SEWER PIPE BUT NOT LESS THAN 4". BLOCKING OF ANY KIND FOR GRADE IS NOT PERMITTED. THE BEDDING MATERIALS SHALL BE COMPACTED TO 90% OF MODIFIED PROCTOR DENSITY. BEDDING SHALL EXTEND TO THE SPRINGLINE ON ALL RCP AND DIP PIPE. BEDDING SHALL EXTEND TO 12" OVER ANY PVC OR HOPE PIPE. COST OF BEDDING SHALL BE CONSIDERED INCIDENTAL TO THE COST OF PIPE. NO SEPARATE PAYMENT SHALL BE MADE FOR THIS.</p> <p>3. STRUCTURES:</p> <p>A. MANHOLE, CATCH BASIN AND INLET BOTTOMS SHALL BE PRECAST CONCRETE SECTIONAL UNITS OR MONOLITHIC CONCRETE. MANHOLES AND CATCH BASINS SHALL BE A MINIMUM 4" IN DIAMETER UNLESS OTHERWISE SPECIFIED ON THE PLANS. STRUCTURE JOINTS SHALL BE SEALED WITH O-RING OR BUTYL ROPE. A MAXIMUM OF EIGHT (8") INCHES OF ADJUSTING RINGS SHALL BE USED.</p> <p>B. A CONCRETE BENCH TO DIRECT FLOWS SHALL BE CONSTRUCTED IN THE BOTTOM OF ALL INLETS AND MANHOLES.</p> <p>C. THE FRAME, GRATE, AND/OR CLOSED LID SHALL BE CAST IRON OF THE STYLE SHOWN ON THE PLANS.</p> <p>D. MANHOLE LIDS SHALL BE MACHINE SURFACED, NON-ROCKING DESIGN. THE CLOSED LIDS SHALL HAVE THE WORD "STORM" CAST ON THE LID. THE JOINTS BETWEEN CONCRETE SECTION ADJUSTING RINGS, AND FRAME SHALL BE SEALED WITH A MASTIC COMPOUND.</p> <p>4. FRENCH DRAIN:</p> <p>A. ALL LOW POINT STORM STRUCTURES ARE TO HAVE FOUR 1" DIAMETER WEEP HOLES PROVIDED 24" BELOW THE TOP OF LID. THE HOLES SHALL BE COVERED WITH A GEOTEXTILE FILTER FABRIC CEMENTED IN PLACE WITH BITUMINOUS MASTIC. THE DRAIN SHALL BE BACKFILLED WITH BEDDING OR CA-7 CRUSHED STONE TO TOP OF SUBGRADE OR BOTTOM OF TOPSOIL.</p> <p>5. CASTINGS:</p> <p>A. CASTINGS FOR SEWER OR OTHER STRUCTURES SHALL BE "NEENAH" OR APPROVED EQUAL. COST OF CASTINGS SHALL BE CONSIDERED INCIDENTAL TO THE COST OF THE STRUCTURE. NO SEPARATE PAYMENT SHALL BE MADE FOR THIS ITEM.</p> <p>6. CLEANING:</p> <p>A. THE STORM SEWER SYSTEM SHALL BE THOROUGHLY CLEANED PRIOR TO FINAL INSPECTION AND TESTING.</p> <p>7. TELEVISIONING:</p> <p>A. THE STORM SEWER SYSTEM SHALL BE TELEVIEWED IF REQUIRED BY MUNICIPALITY.</p>
2. TOPSOIL EXCAVATION INCLUDES:	<p>A. EXCAVATION OF TOPSOIL AND OTHER STRUCTURALLY UNSUITABLE MATERIALS WITHIN THOSE AREAS THAT WILL REQUIRE EARTH EXCAVATION OR COMPACTED EARTH FILL MATERIAL. EXISTING VEGETATION SHALL BE REMOVED PRIOR TO STRIPPING TOPSOIL OR FILLING AREAS.</p> <p>B. PLACEMENT OF THE EXCAVATED MATERIAL IN OWNER DESIGNATED AREAS FOR FUTURE USE WITHIN AREAS TO BE LANDSCAPED, AND THOSE AREAS NOT REQUIRING STRUCTURAL FILL MATERIAL. PROVIDE NECESSARY EROSION CONTROL MEASURES FOR STOCKPILE.</p> <p>C. TOPSOIL STOCKPILED FOR RESPREAD SHALL BE FREE OF CLAY AND SHALL NOT CONTAIN ANY OF THE TRANSITIONAL MATERIAL BETWEEN THE TOPSOIL AND CLAY. THE TRANSITIONAL MATERIAL SHALL BE USED IN NON-STRUCTURAL FILL AREAS OR DISPOSED OF OFF-SITE.</p> <p>D. TOPSOIL RESPREAD SHALL INCLUDE HAULING AND SPREADING 6" OF TOPSOIL OVER AREAS TO BE LANDSCAPED WHERE SHOWN ON THE PLANS OR DIRECTED BY THE OWNER.</p> <p>E. MODERATE COMPACTION IS REQUIRED IN NON-STRUCTURAL FILL AREAS.</p>	3. CONCRETE WORK	3. MANHOLES:	1. PIPE MATERIALS:	
3. EARTH EXCAVATION INCLUDES:	<p>A. EXCAVATION OF CLAY AND OTHER MATERIALS WHICH ARE SUITABLE FOR USE AS STRUCTURAL FILL. THE EXCAVATION SHALL BE TO WITHIN A TOLERANCE OF 0.1 FEET OF THE PLAN SUBGRADE ELEVATIONS WHILE MAINTAINING PROPER DRAINAGE. THE TOLERANCE WITHIN PAVEMENT AREAS SHALL BE SUCH THAT THE EARTH MATERIALS SHALL "BALANCE" DURING THE FINE GRADING OPERATION.</p> <p>B. PLACEMENT OF THE CLAY AND OTHER SUITABLE MATERIALS SHALL BE WITHIN THOSE AREAS REQUIRING STRUCTURAL FILL IN ORDER TO ACHIEVE THE PLAN SUBGRADE ELEVATIONS TO WITHIN A TOLERANCE OF 0.1 FEET. THE FILL MATERIAL SHALL BE PLACED IN LOOSE LISTS THAT SHALL NOT EXCEED EIGHT (8) INCHES IN THICKNESS, AND THE WATER CONTENT SHALL BE ADJUSTED IN ORDER TO ACHIEVE REQUIRED COMPACTION.</p> <p>STRUCTURAL FILL MATERIAL MAY BE PLACED WITHIN THOSE PORTIONS OF THE SITE NOT REQUIRING STRUCTURAL FILL, TO WITHIN SIX (6) INCHES OF THE PLAN FINISHED GRADE ELEVATION. IN AREAS REQUIRING STRUCTURAL FILL, HOWEVER, THIS MATERIAL SHALL NOT BE PLACED OVER TOPSOIL OR OTHER UNSUITABLE MATERIALS UNLESS SPECIFICALLY DIRECTED BY A SOILS ENGINEER WITH THE CONCURRENCE OF THE OWNER.</p> <p>C. COMPACTION OF THE CLAY AND OTHER SUITABLE MATERIALS, SHALL BE TO AT LEAST 93% OF THE MODIFIED PROCTOR DRY DENSITY WITHIN PROPOSED PAVEMENT AREAS, SIDEWALK, ETC. COMPACTION SHALL BE AT LEAST 95% OF THE MODIFIED PROCTOR WITHIN PROPOSED BUILDING PAD AREAS.</p> <p>D. EXCAVATION: QUANTITIES OF EARTH EXCAVATION INDICATED ELSEWHERE IN THIS CONTRACT HAVE BEEN COMPUTED BY THE END AREA METHOD AS PROVIDED FOR IN SECTION 202 OF THE STANDARD SPECIFICATIONS. EXCAVATED MATERIALS NOT NEEDED FOR THIS JOB SITE SHALL BE LEGALLY DISPOSED OF. PAYMENT SHALL BE MADE AT THE CONTRACT UNIT PRICE PER CUBIC YARD OF EARTH EXCAVATION.</p>	4. FLEXIBLE PAVEMENT	4. FRAMES AND LIDS:	2. FITTINGS:	
4. UNSUITABLE MATERIAL	UNUSUITABLE MATERIAL SHALL BE CONSIDERED AS MATERIAL WHICH IS NOT SUITABLE FOR THE SUPPORT OF PAVEMENT AND BUILDING CONSTRUCTION, AND IS ENCOUNTERED BELOW NORMAL TOPSOIL DEPTHS AND THE PROPOSED SUBGRADE ELEVATION. THE DECISION TO REMOVE SAID MATERIAL, AND TO WHAT EXTENT, SHALL BE MADE BY A SOILS ENGINEER WITH THE CONCURRENCE OF THE OWNER.	5. TESTING AND FINAL ACCEPTANCE	5. DROP MANHOLE ASSEMBLIES:	3. WATER SERVICES:	
5. MISCELLANEOUS THE CONTRACTOR SHALL:	<p>A. SPREAD AND COMPACT UNIFORMLY TO THE DEGREE SPECIFIED ALL EXCESS TRENCH SPOIL AFTER COMPLETION OF THE UNDERGROUND IMPROVEMENTS.</p> <p>B. SCARIFY, DISC, AERATE, AND COMPACT, TO THE DEGREE SPECIFIED, THE UPPER TWELVE (12) INCHES OF THE SUITABLE SUBGRADE MATERIAL, IN ALL AREAS THAT MAY BE SOFT DUE TO EXCESS MOISTURE CONTENT. THIS APPLIES TO CUT AREAS AS WELL AS FILL AREAS.</p> <p>C. PROVIDE WATER TO ADD TO DRY MATERIAL IN ORDER TO ADJUST THE MOISTURE CONTENT FOR THE PURPOSE OF ACHIEVING THE SPECIFIED COMPACTION.</p> <p>D. BACKFILL THE CURB AND GUTTER AFTER ITS CONSTRUCTION AND PRIOR TO THE PLACEMENT OF THE BASE COURSE MATERIAL. THE CURBS SHALL NOT BE BACKFILLED UNTIL THE CONCRETE HAS CURED FOR AT LEAST 7 DAYS.</p> <p>E. TRENCH COMPACTION: ALL TRENCHES SHALL BE COMPACTED BY MECHANICAL TECHNIQUES APPROVED BY THE SOILS ENGINEER UNTIL PROPER COMPACTION IS ACHIEVED. THE REQUIREMENT FOR MECHANICAL COMPACTION MAY BE WAIVED IF, IN THE OPINION OF THE SOILS ENGINEER AND THE MUNICIPAL ENGINEER, THE BACKFILLED TRENCHES MEET THE DENSITY REQUIREMENTS. JETTING OF TRENCHES FOR COMPACTION WILL NOT BE ALLOWED.</p>		6. CLEANING:	4. VALVES:	
			7. TESTING:	5. VALVE VAULTS:	
			8. TELEVISIONING:	6. FIRE HYDRANTS:	
			9. TEST RESULTS:	7. CORPORATION STOPS:	
			10. CERTIFICATION:	8. SERVICE BOX:	
			11. RECORD DRAWINGS:	9. BEDDING:	
				10. IEPA WATERMAIN PROTECTION:	
				11. TESTING:	
			</		

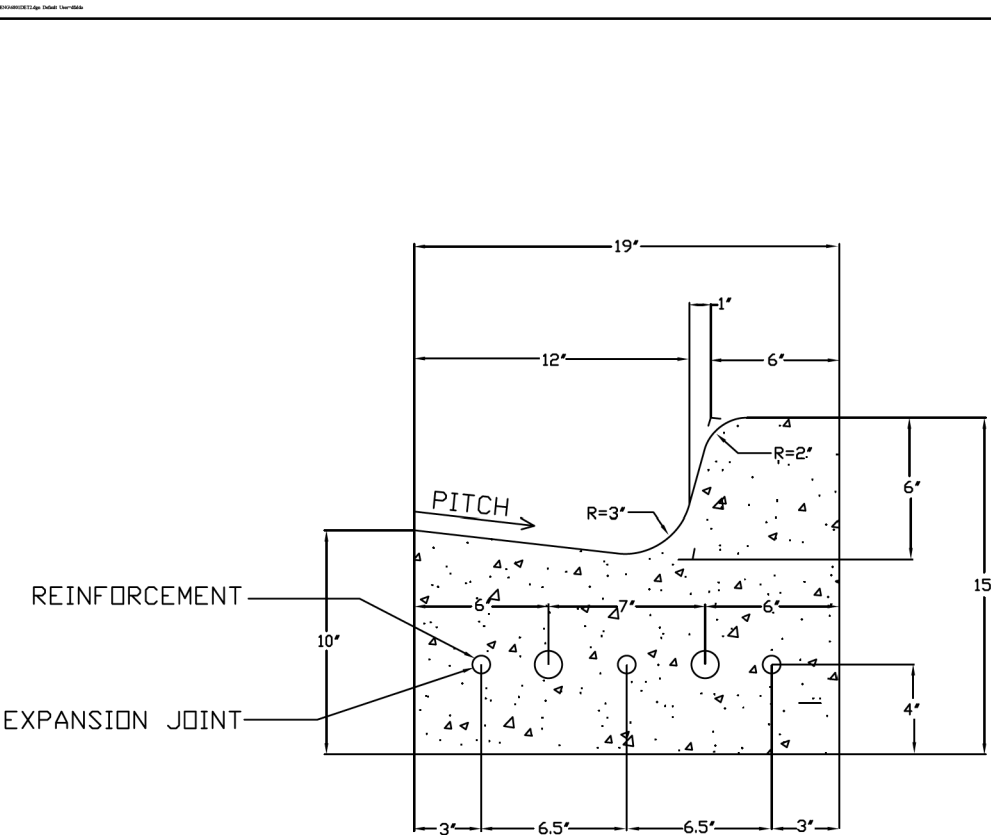


NOTES:
1. STEPS SHALL BE EMBEDDED INTO THE WALL A MINIMUM OF 5 DECKS. STEPS SHALL NOT BE EXTENDED ON THE OUTSIDE.
2. CAST IRON STEPS SHALL BE GRAY IRON CONFORMING TO THE REQUIREMENTS OF ARTICLE 710.7 OF THE STANDARD SPEC.
3. STEEL REINFORCED PLASTIC. MANHOLE STEPS SHALL BE MADE WITH AN IMPROVED PLASTIC SUCH AS COPOLYMER POLYPROPYLENE MEETING WITH THE REQUIREMENTS OF ASTM DESIGNATION 2344 TYPE II, GRADE 400B, REINFORCED WITH A DEFORMED 3/8 INCH DIAMETER REINFORCING BAR WHICH CONFORMS TO THE REQUIREMENTS OF ASTM DESIGNATION A-615 GRADE 66.

CATCH BASIN-TYPE A STEP DETAIL		
SYNOPSIS/NO.	STORM SEWER IMPROVEMENT	DATE:
DRAWN BY:		REVISION:
Village of ORLAND PARK		
Engineering Department		
STS-03		

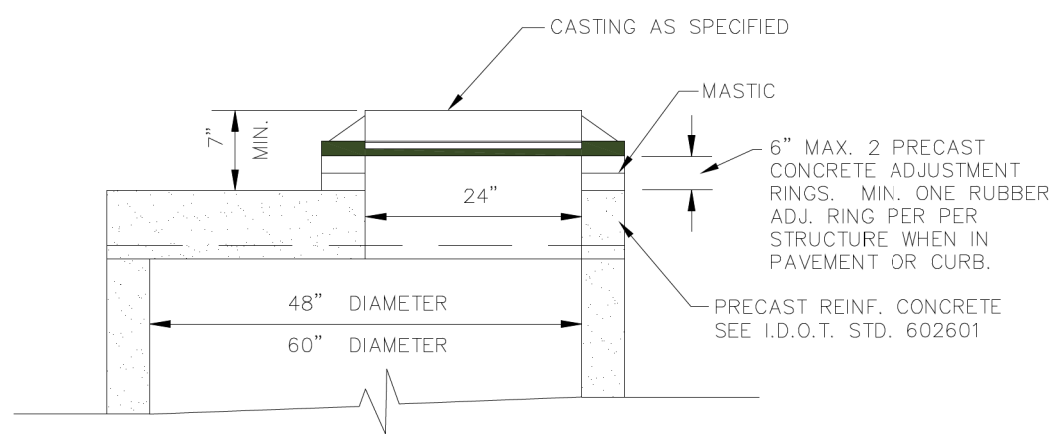


PROVIDE WATERTIGHT CONNECTION CONFORMING TO ASTM C-923



- NOTES:
1. REINFORCEMENT SHALL BE THREE (3) #5 REINFORCING BARS CONTINUOUS BETWEEN EXPANSION JOINTS, WITH LOCATION SPACING AS INDICATED ABOVE.
 2. EXPANSION JOINT: 3/4" THICK BITUMINOUS FILLER MATERIAL- PROVIDE TWO (2) #6 X 24" SMOOTH BARS WITH EXPANSION CAPS AT EACH EXPANSION JOINT. INSTALL AT ENDS OF ALL RADII AND NO FURTHER THAN SIXTY (60') FEET APART. SAW THREE (3) EQUALLY SPACED CONTRACTION JOINTS AT TWENTY (20') FEET INTERVALS BETWEEN EXPANSION JOINTS. CONTRACTION JOINTS SHALL BE SAW-CUT IN THE UPPER ONE-THIRD OF CURB AND GUTTER WITHIN 3 DAYS OF PLACEMENT.
 3. COST OF BARS SHALL BE INCLUDED IN THE UNIT PRICE (PER LINEAL FOOT) FOR CURB AND GUTTER.

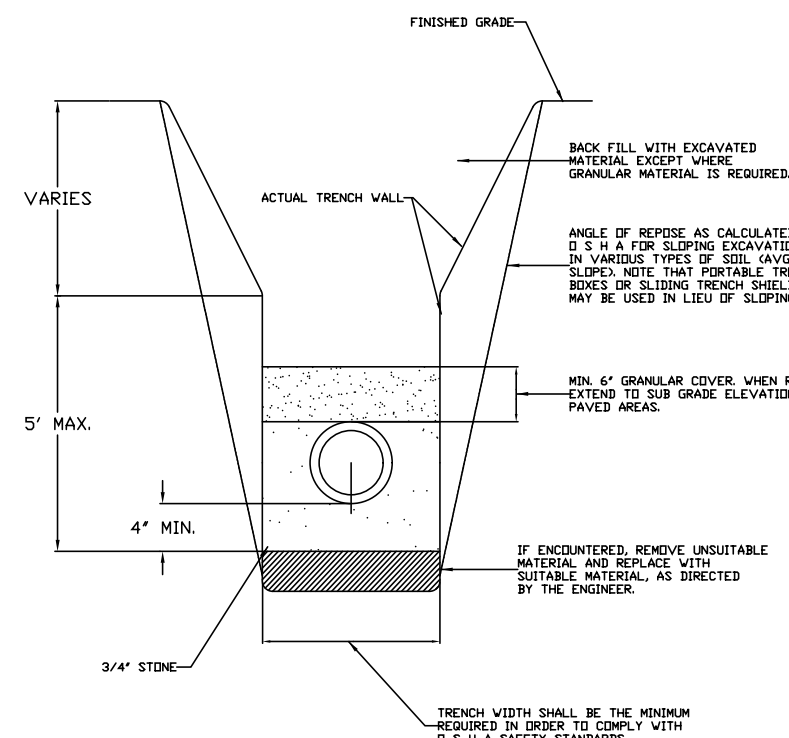
B - 6.12 CURB AND GUTTER		
SYNOPSIS/NO.	STREET & PAVEMENT	DATE:
DRAWN BY:		REVISION:
Village of ORLAND PARK		
Engineering Department		
STR-04		



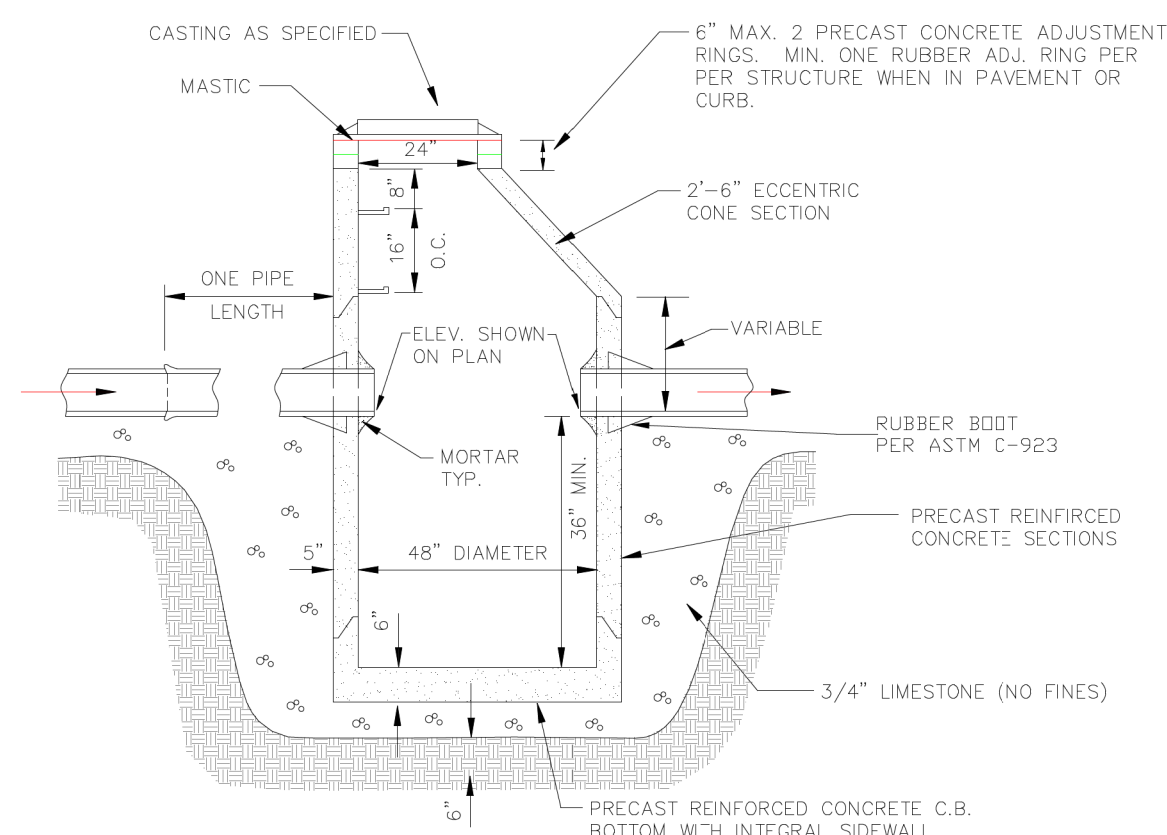
NOTES:

1. Adjustment: Any structure located within pavement shall require the use of at least one (1) rubber adjustment riser, Infra-Riser brand or approved equal, and, if necessary, said riser shall be of the tapered type in order to match the proposed grade of the roadway. No more than two (2) precast concrete adjusting rings with six (6) inch maximum height adjustment shall be allowed. Adjustments within pavement that are less than three (3) inches in height shall consist of only rubber adjustment riser(s). The minimum thickness of a rubber adjustment riser shall be one (1) inch. Adjustments within pavement greater than three (3) inches in height shall use a minimum three (3) inch precast concrete riser for the lower riser, and the final riser shall be of the rubber type.
2. Sealing: All non-rubber mating surfaces, exterior joints of frames, adjustment riser(s), flat slab top or cone section (if applicable) and structure section shall be sealed with a uniform application of bituminous mastic sealant. The mating surfaces of all rubber adjustment risers shall be sealed with the manufacturer's recommended sealant for rubber adjustment risers. If multiple adjustment risers are required, a continuous application of sealant shall be applied between each unit. Interior surfaces shall be sealed with concrete mortar or epoxy mortar. Concrete mortar or epoxy mortar will not be used on mating surfaces as a sealant between adjustment risers, structure sections or frames.

FLAT SLAB TOP		
SYNOPSIS/NO.	STORM SEWER IMPROVEMENT	DATE:
DRAWN BY:		REVISION:
Village of ORLAND PARK		
Engineering Department		
STS-06		



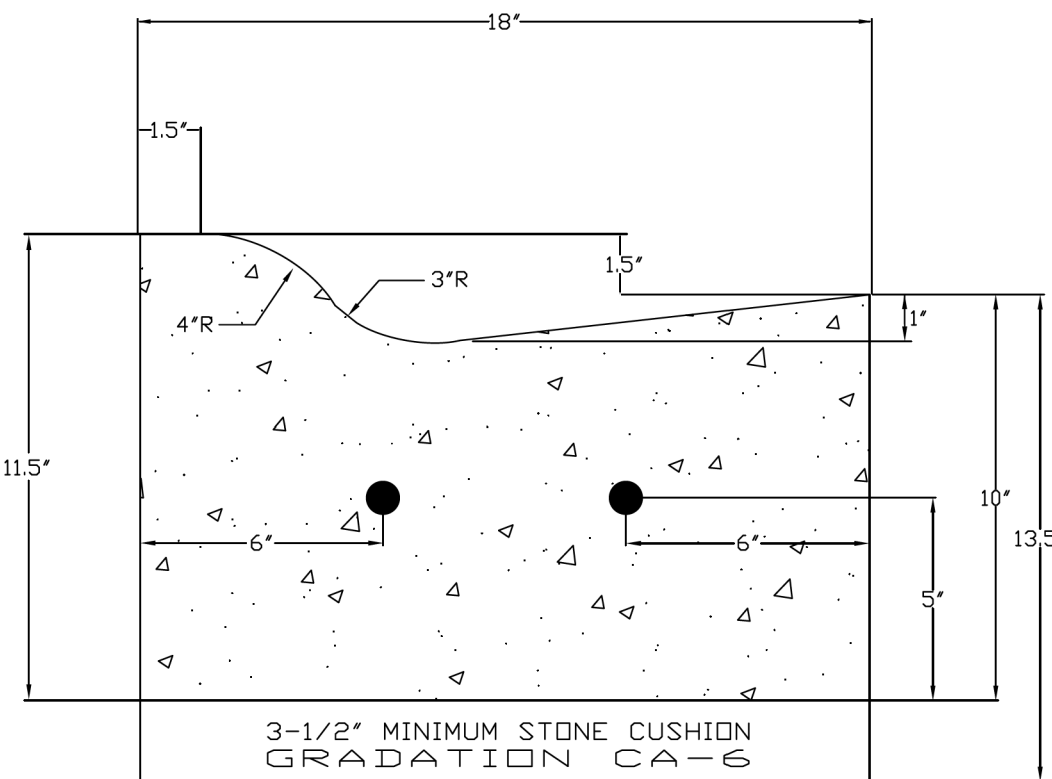
TRENCH SECTION (STORM SEWER)		
SYNOPSIS/NO.	STORM SEWER IMPROVEMENT	DATE:
DRAWN BY:		REVISION:
Village of ORLAND PARK		
Engineering Department		
STS-11		



NOTES:

1. Adjustment: Any structure located within pavement shall require the use of at least one (1) rubber adjustment riser, Infra-Riser brand or approved equal, and, if necessary, said riser shall be of the tapered type in order to match the proposed grade of the roadway. No more than two (2) precast concrete adjusting rings with six (6) inch maximum height adjustment shall be allowed. Adjustments within pavement that are less than three (3) inches in height shall consist of only rubber adjustment riser(s). The minimum thickness of a rubber adjustment riser shall be one (1) inch. Adjustments within pavement greater than three (3) inches in height shall use a minimum three (3) inch precast concrete riser for the lower riser, and the final riser shall be of the rubber type.
2. Pipe and frame seals: All pipe connection openings shall be precast with resilient rubber water tight pipe to manhole sleeves or seals conforming to ASTM C-923. Adapter chimney seal with twelve (12) inch sleeve type shall extend from the manhole cone to the manhole frame for all structures in the right-of-way.
3. Sealing: All mating surfaces of adjustment riser(s), structure sections, and frames shall be sealed with a mastic sealant. No concrete mortar or epoxy shall be allowed as a sealant for adjustment risers, structure sections or frames. If multiple adjustment risers are required, a continuous application of sealant shall be applied between each unit.
4. All bottom sections shall be monolithically precast including bases and invert flowlines.
5. Provide CA-6 aggregate backfill around catch basin to subgrade elevation in paved areas for subgrade.

CATCHBASIN TYPE A		
SYNOPSIS/NO.	STORM SEWER IMPROVEMENT	DATE:
DRAWN BY:		REVISION:
Village of ORLAND PARK		
Engineering Department		
STS-02		



NOTES:

1. REINFORCEMENT: PROVIDE TWO (2) #4 REINFORCING BARS CONTINUOUS BETWEEN EXPANSION JOINTS, WITH LOCATION SPACING AS INDICATED ABOVE.
2. EXPANSION JOINT: 3/4" THICK BITUMINOUS FILLER MATERIAL- PROVIDE TWO (2) #6 X 24" SMOOTH BARS WITH EXPANSION CAPS AT EACH EXPANSION JOINT. INSTALL AT ENDS OF ALL RADII AND NO FURTHER THAN SIXTY (60') FEET APART.
3. SAW THREE (3) EQUALLY SPACED CONTRACTION JOINTS AT TWENTY (20') FEET INTERVALS BETWEEN EXPANSION JOINTS. CONTRACTION JOINTS SHALL BE SAW-CUT IN THE UPPER ONE-THIRD OF CURB AND GUTTER WITHIN 3 DAYS OF PLACEMENT.
4. COST OF BARS SHALL BE INCLUDED IN THE UNIT PRICE (PER LINEAL FOOT) FOR CURB AND GUTTER.

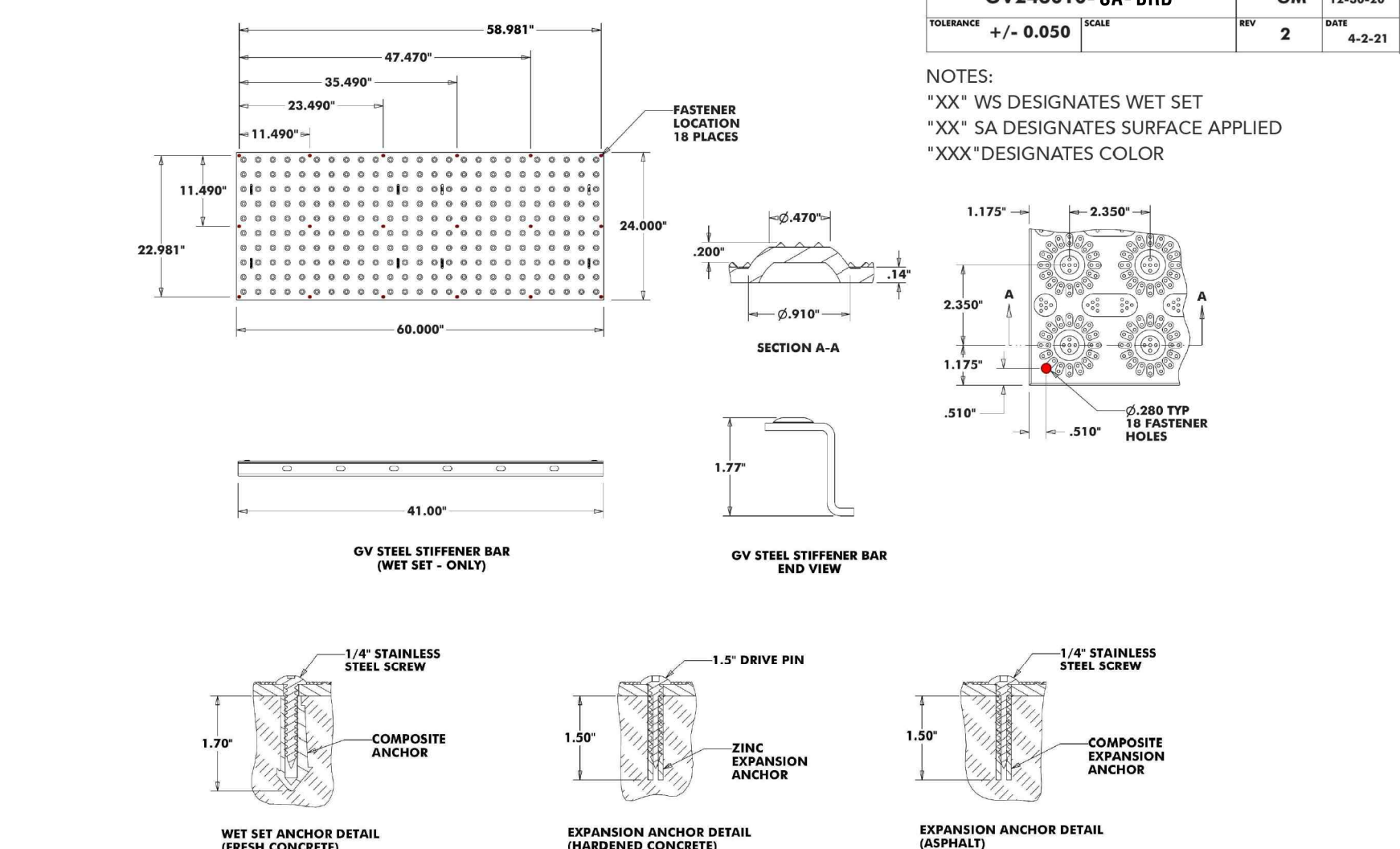
CURB AND GUTTER DETAIL (RESIDENTIAL)		
SYNOPSIS/NO.	STREET & PAVEMENT	DATE:
DRAWN BY:		REVISION:
Village of ORLAND PARK		
Engineering Department		
STR-03		

TUFTILE SPECIFICATION AT VILLAGE REQUEST

24" X 60" X 10 GA (REPLACEABLE)

GALVANIZED STEEL DETECTABLE WARNING TILE

2.350 DOME SPACING

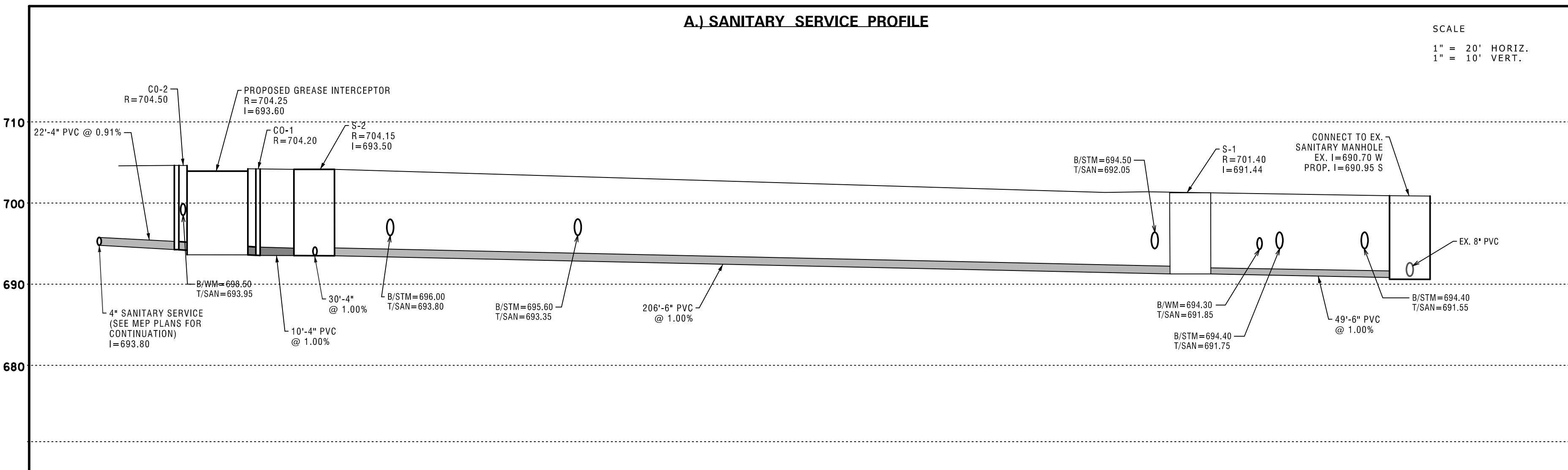


NOTE: TUFTILE TO BE GALVANIZED AND COLOR RED PER VILLAGE REQUEST

1-888-960-8897 905 Telser Road, Lake Zurich, IL 60047

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NO.	DATE	REMARKS
4	07/24/25	PER ARCHITECT
3	07/21/25	PER VILLAGE
1	03/11/25	PER ARCHITECT

DETAILS - 1

DOWNTOWN ORLAND PARK

PARCEL H

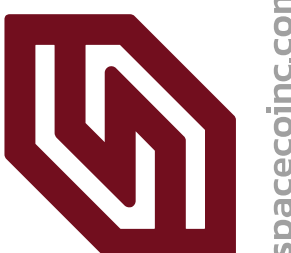
ORLAND PARK, ILLINOIS

Spaceco

Civil Engineering & Surveying

Rosemont, IL - Morris, IL - Indianapolis, IN

spacecoinc.com

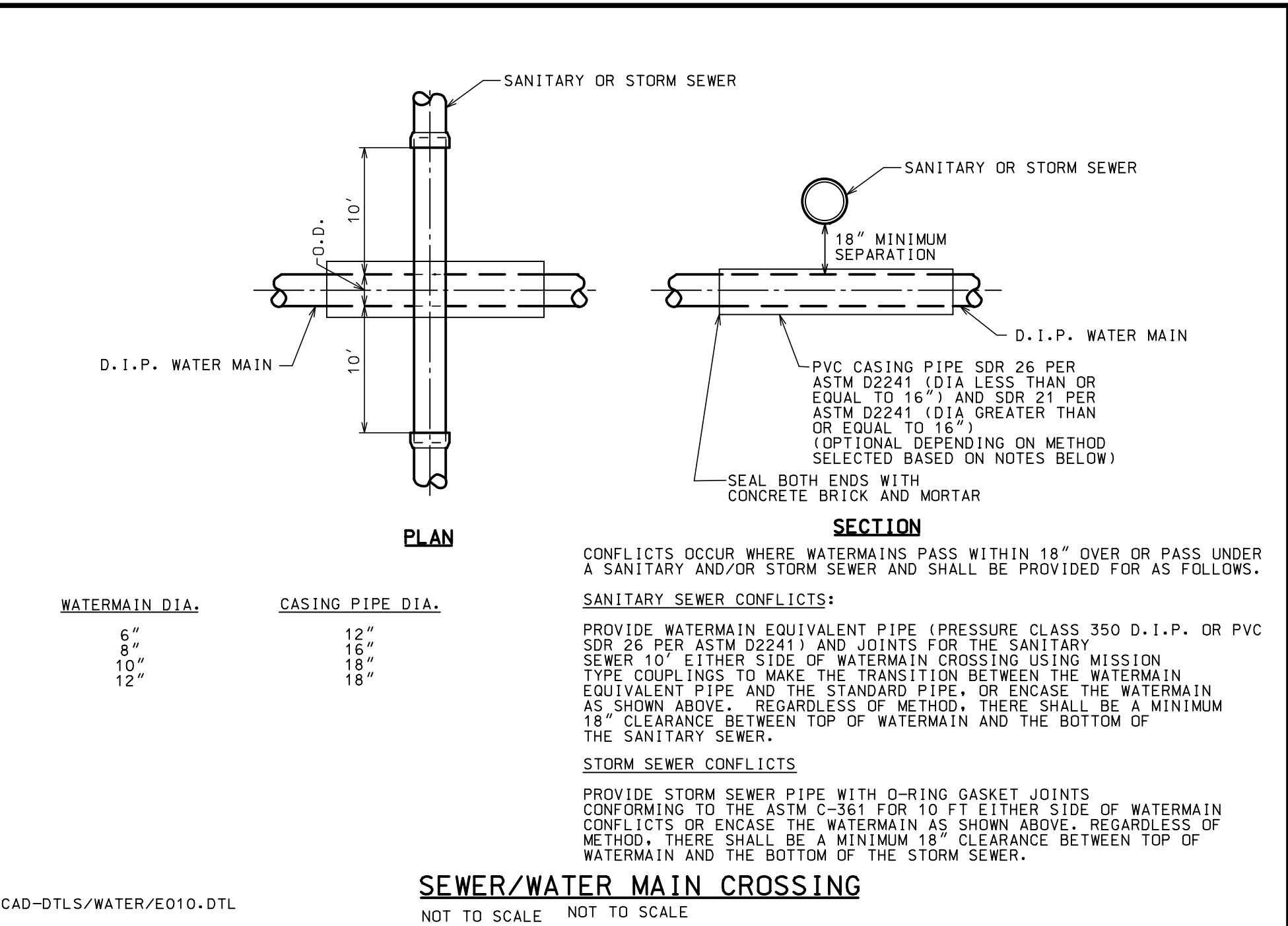
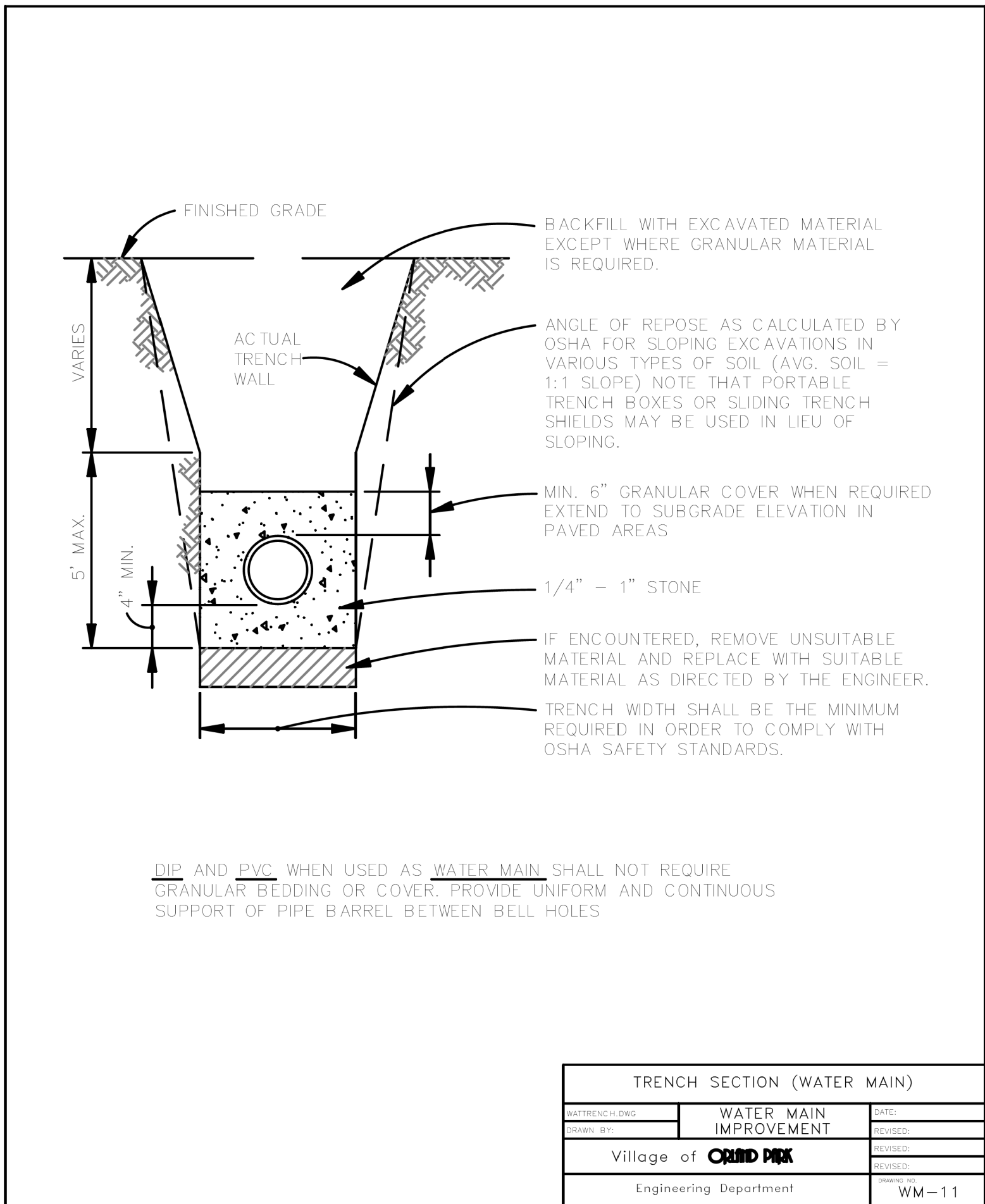
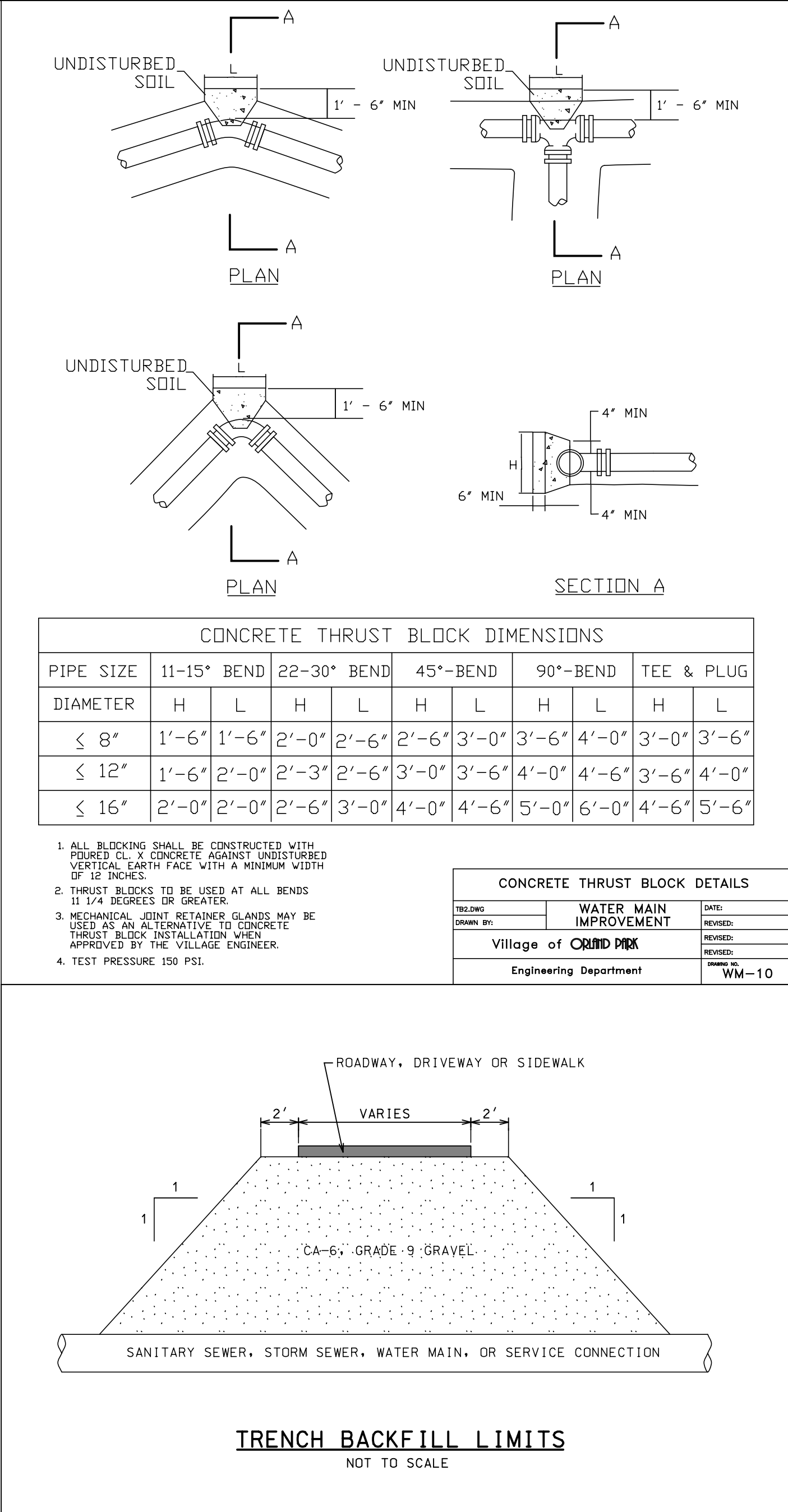
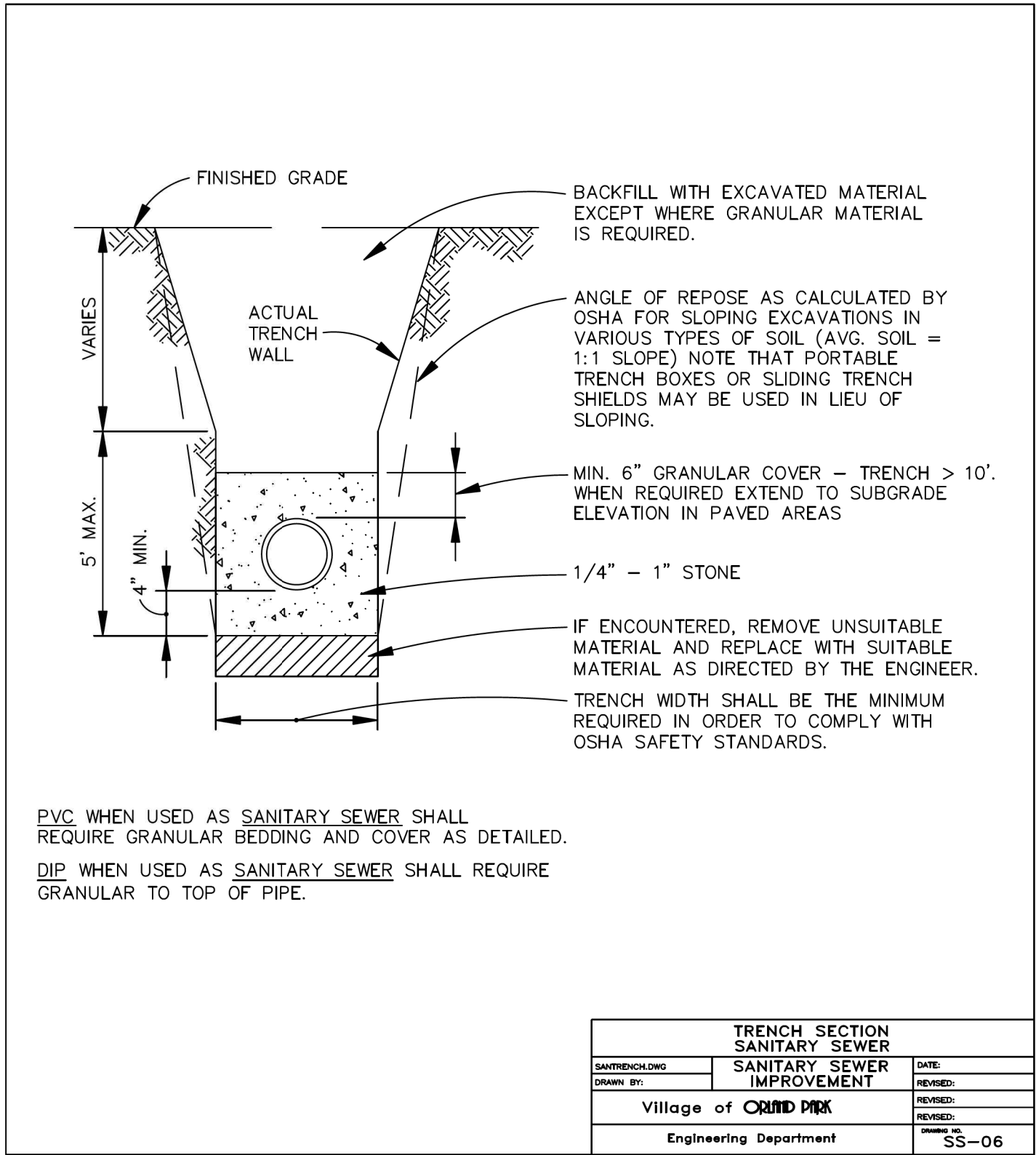
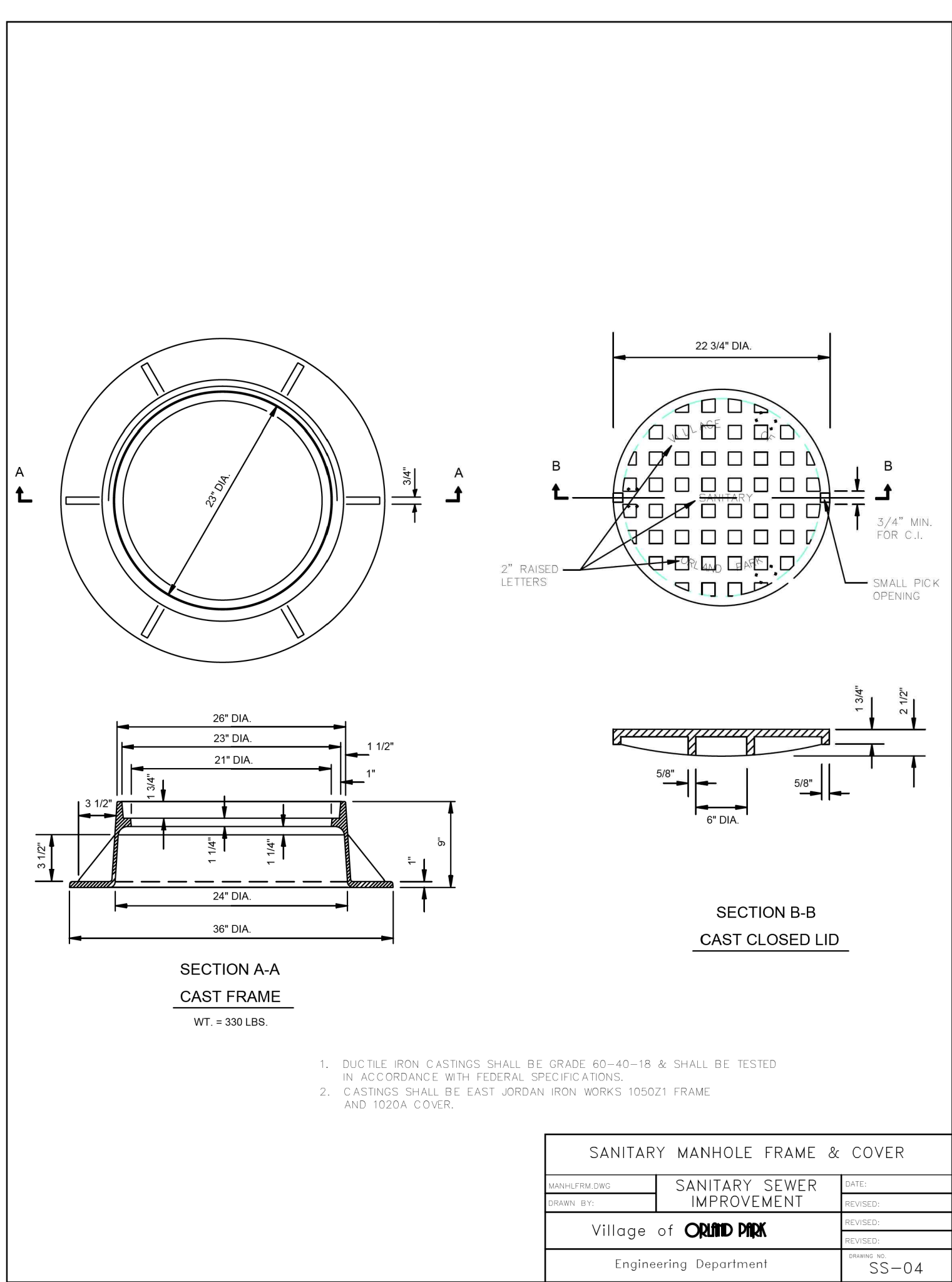
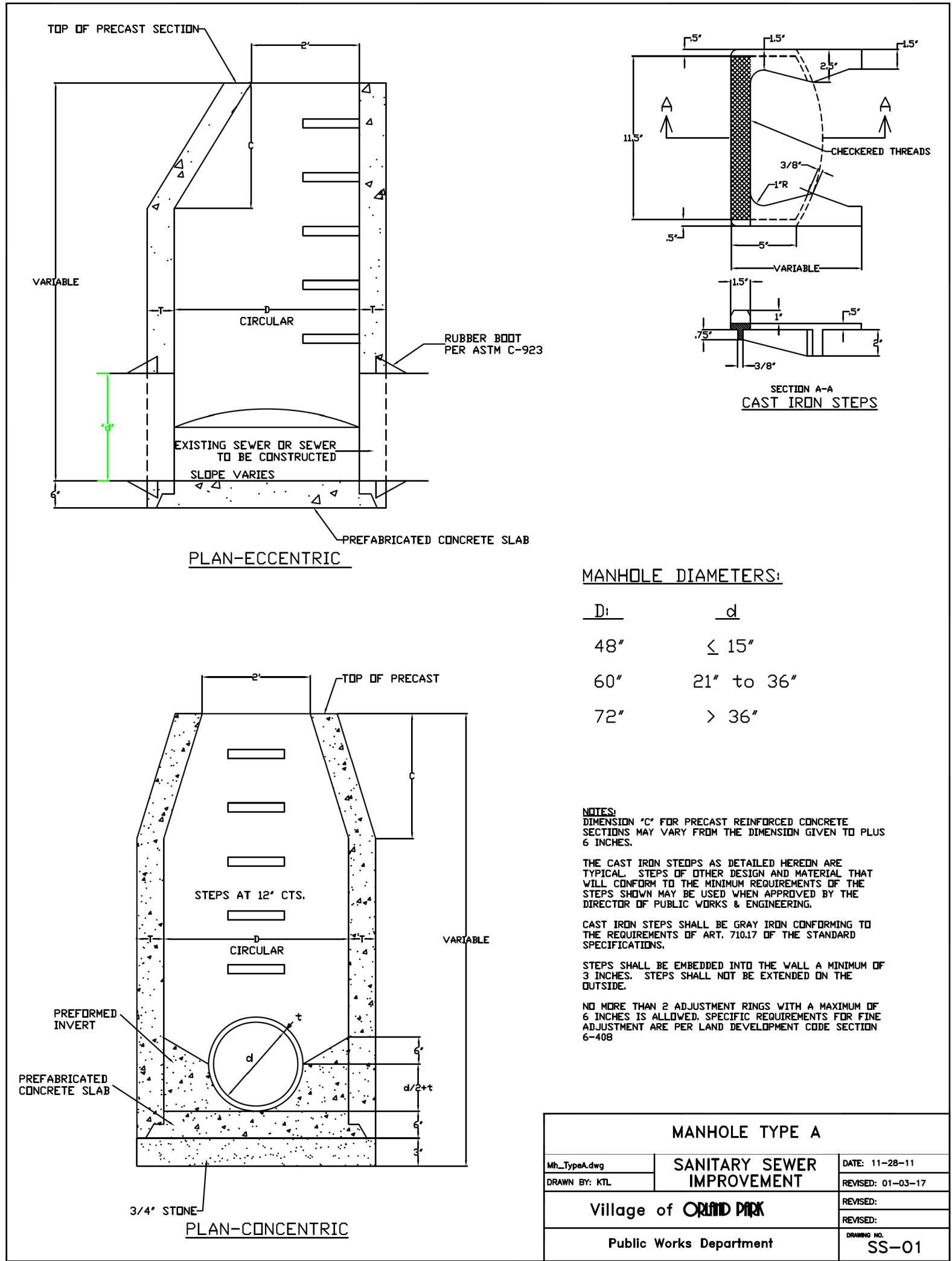


FILENAME:
4278.16D1.DGN

DATE:
02/07/25

JOB NO.
4278.16

SHEET
D1
14 OF 17



ABBREVIATIONS

NOTE: NOT ALL ITEMS MAY BE USED.

ACCU	AIR COOLED CONDENSING UNIT
A/C	AIR CONDITIONING
ACU	AIR CONDITIONING UNIT
AC	ALTERNATING CURRENT
AD	ACCESS DOOR
ADA	AMERICAN DISABILITIES ACT
ADJ	ADJUSTABLE
AF	AMP FUSE
AFF	ABOVE FINISHED FLOOR
AHJ	AUTHORITY HAVING JURSDICTION
AHU	AIR HANDLING UNIT
AL	ALUMINUM
AMP	AMPERE (AMP, AMPS)
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE
AP	ACCESS PANEL
APPROX	APPROXIMATE (E), (ELY)
ARCH	ARCHITECT
AWG	AMERICAN WIRE GAUGE
BB	BASEBOARD
BLDG	BUILDING
BOT	BOTTOM
CB	CIRCUIT BREAKER
C/T	CURRENT TRANSFORMER
CKT	CIRCUIT
CLG	CEILING
CONC	CONCRETE
CONST	CONSTRUCTION
CONT.	CONTINUOUS (S), (E)
Cu	COPPER
DB	DECIBEL(S)
DC	DIRECT CURRENT
DED	DEDICATED
DEPT	DEPARTMENT
DIA	DIAMETER
DIP	DUCTILE IRON PIPE
DISC.	DISCONNECT
DS	DAYLIGHT SENSOR
DWG	DRAWING
(E)	EXISTING
EX	EXIT
(ER)	EXISTING RELOCATED
EBB	ELECTRIC BASE BOARD
EC	ELECTRICAL CONTRACTOR
EDH	ELECTRIC DUCT HEATER
EF	EXH FAN EXHAUST FAN
ELEC	ELECTRIC
ELEV	ELEVATOR
EM	EMERGENCY
ENCL	ENCLOSURE
EQUIP	EQUIPMENT
EUH	ELECTRIC UNIT HEATER
EWC	ELECTRIC WATER COOLER
EXIST	EXISTING
EX	EXIT SIGN
EXT	EXTERIOR
FIXT	FIXTURE
FLEX	FLEXIBLE
FLR	FLOOR
FP	FIRE PROTECTION
FURN	FURNISH
GALV	GALVANIZED
GC	GENERAL CONTRACTOR
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
GND	GROUND
HOA	HAND, OFF, AUTO STATION
HORIZ	HORIZONTAL
HP	HORSEPOWER
HR	HOUR
HVAC	HEATING, VENTILATING, AND AIR CONDITIONING
HZ	FREQUENCY
INT	INTERIOR
KW	KILOWATT
KWH	KILOWATT HOUR
LV	LOW VOLTAGE
MAX	MAXIMUM
MC	MECHANICAL CONTRACTOR
MCB	MAIN CIRCUIT BREAKER
MECH	MECHANICAL
MIN	MINIMUM
MISC	MISCELLANEOUS
MLO	MAIN LUG ONLY
MTD	MOUNTED
MTL	METAL
(N)	NEW
NA	NOT APPLICABLE
NIC	NOT IN CONTRACT
NL	NIGHT LIGHT
NO.	NUMBER
NTS	NOT TO SCALE
OS	OCCUPANCY SENSOR
PC	PHOTOCELL
PD	PRESSURE DROP/DIFFERENCE
PH	PHASE (ELECTRIC)
POC	POINT OF CONNECTION
QTY	QUANTITY
RECPT.	RECEPTALCE(S)
RM	ROOM
RTU	ROOF TOP UNIT
SECT	SECTION
SHT	SHEET
SPD	SURGE PROTECTION DEVICE
SWT	SWITCH
T.C.	TIME CLOCK
TYP	TYPICAL
UNO	UNLESS NOTED OTHERWISE
VA	VOLT AMPERE
VAR	VARIABLE
VERT	VERTICAL
VS	VACANCY SENSOR
W	WIRE OR WATT
W/	WITH
W/O	WITHOUT
WP	WEATHERPROOF

LEGEND

NOTE: NOT ALL ITEMS MAY BE USED.

SYMBOL	DESCRIPTION
①	KEYNOTE TAG
	REVISION TAG
	PUSH BUTTON
	JUNCTION BOX
	PULL BOX
	NEW UNDERGROUND CONDUIT AND WIRE RUN
	GROUND WIRE
	SITE LIGHTING POLE LIGHT

GENERAL NOTES

ELECTRICAL NOTES AND SPECIFICATIONS

1. ALL WORK SHALL COMPLY WITH ALL THE APPLICABLE LOCAL, MUNICIPAL AND FIRE CODES. THE WORK SHALL BE IN TOTAL COMPLIANCE WITH THE RULES AND REGULATIONS OF THE AUTHORITIES HAVING JURISDICTION.

2. REVIEW ADOPTED CODES AND CODE AMENDMENTS WITH THE LOCAL GOVERNING AUTHORITIES AND BECOME FAMILIAR WITH THE LOCAL REGULATIONS RELATING TO THE WORK.

3. CONTRACTOR SHALL OBTAIN AND PAY FOR ALL PERMITS AND INSPECTION FEES AS REQUIRED FOR HIS PORTION OF THE WORK.

4. CONTRACTOR SHALL GUARANTEE ALL WORK FOR A PERIOD OF ONE YEAR FROM DATE OF FINAL COMPLETION.

5. CONTRACTOR SHALL COORDINATE ALL WORK WITH THE RESPECTIVE TRADES AND VERIFY LOCATIONS FROM THE ARCHITECTURAL DRAWINGS, FIELD MEASUREMENTS AND SUPPLIER SHOP DRAWINGS.

6. COORDINATE EQUIPMENT VOLTAGE, PHASE, BREAKER SIZE, AND DISCONNECTING MEANS WITH SUBCONTRACTORS PROVIDING EQUIPMENT PRIOR TO ORDERING AND INSTALLATION OF ANY EQUIPMENT, PANELS, BREAKERS, CONDUIT AND WIRE, ETC.

7. WORK REQUIRED OF ANY TRADE MAY BE SHOWN ANYWHERE ON ANY DRAWING OR IN ANY PART OF THE SPECIFICATIONS. THE CONTRACTOR IS ADVISED TO INCLUDE ALL WORK IN HIS BID. NO CLAIM FOR AN EXTRA WILL BE CONSIDERED FOR FAILURE TO DO SO.

8. CONTRACTOR SHALL REVIEW ALL DRAWINGS AND SPECIFICATIONS OF ALL TRADES AND SHALL INCLUDE ANY ELECTRICAL WORK INDICATED OR REQUIRED BY ANY TRADE. THE CONTRACTOR ACKNOWLEDGES BY SUBMITTING A BID THAT CONSTRUCTION DOCUMENTS HAVE BEEN REVIEWED, AND THAT THE INFORMATION SHOWN AND DESCRIBED IS SUFFICIENT TO PREPARE A COMPLETE AND ACCURATE BID FOR A COMPLETE, FINISHED PROJECT, ANY CLARIFICATIONS, DISCREPANCIES, OMISSIONS, REQUEST FOR ADDITIONAL INFORMATION, OR UNUSUAL CONDITIONS ARE TO BE BROUGHT TO THE ARCHITECT'S ATTENTION FOR RESOLUTION IN WRITING PRIOR TO SUBMITTING BIDS.

9. SEE ARCHITECTUAL PLANS FOR FULL SCOPE OF ARCHITECTURAL DEMOLITION. REMOVE ALL ELECTRICAL DEVICES AND FIXTURES AND ASSOCIATED CONDUIT AND WIRE IN WALLS AND CEILINGS BEING DEMOLISHED. REMOVE FLOOR MOUNTED ELECTRICAL DEVICES AND ASSOCIATED CONDUIT AND WIRE IN DEMOLISHED AREAS. PATCH EXISTING FLOORS WHERE DEVICES AND CONDUITS ARE REMOVED. MAINTAIN EXISTING FLOOR FIRE RATINGS.

10. ALL DIMENSIONS TO BE VERIFIED IN THE FIELD AND WITH SHOP DRAWINGS.

11. CONTRACTOR SHALL COMPLY WITH ALL IDENTIFICATION REQUIREMENTS OF THE NEC AND AHJ.

12. INDEPENDENT ELECTRICAL EQUIPMENT SUPPORT WIRES INSTALLED WITHIN A DROP CEILING SHALL BE DISTINGUISHED BY COLOR, TAG OR OTHER PERMANENT MEANS.

13. LAYOUT OF EQUIPMENT, ACCESSORIES AND WIRING ARE DIAGRAMMATIC AND DO NOT INDICATE EVERY BOX, CONDUIT, WIRING OR SIMILAR ITEMS FOR A COMPLETE INSTALLATION.

14. CUTTING OF ANY STRUCTURAL MEMBER SHALL BE APPROVED BY THE ARCHITECT IN WRITING PRIOR TO WORK BEING DONE.

15. WHEREVER CIRCUIT CONDUCTORS ARE SPLICED IN A BOX, ANY EQUIPMENT GROUNDING CONDUCTOR ASSOCIATED WITH THESE CIRCUITS MUST BE BONDED ("PIGTAILED") TO THE BOX.

16. CIRCUIT NUMBERS GIVEN ON DRAWINGS ARE FOR CIRCUIT IDENTIFICATION ONLY. THE CONTRACTOR SHALL INSTALL CIRCUITRY AS GOVERNED BY FIELD CONDITIONS. PROVIDE UPDATED PANEL DIRECTORIES AT COMPLETION OF PROJECT.

17. ALL LINE VOLTAGE CONDUCTORS SHALL BE COPPER, MINIMUM #12 GAGE, 98% CONDUCTIVITY WITH 600 VOLT INSULATION, SUITABLE FOR 60°C OPERATING TEMPERATURE, APPROPRIATE FOR DRY OR WET LOCATIONS, THW, THWN OR THHN FOR BRANCH CIRCUITS, SIZES #10 AND LARGER TO BE STRANDED. FEEDERS AND MOTOR POWER CIRCUITS SHALL BE THW OR THHN, COPPER WITH 600 VOLT INSULATION, SUITABLE FOR 75°C OPERATING TEMPERATURE AND APPROPRIATE FOR DRY OR WET LOCATIONS. LOW VOLTAGE CONDUCTORS SHALL BE MINIMUM #14 GAGE.

18. RACEWAY FITTINGS SHALL BE GALVANIZED STEEL. EXTERIOR MOUNTED RACEWAYS SHALL BE GALVANIZED RIGID STEEL WITH THREADED FITTINGS, PROTECTED WITH GALVANIZED COATING.

19. WHERE CONDUIT PASSES FROM THE INTERIOR TO THE EXTERIOR OR UNCONDITIONED SPACES, THE RACEWAY SHALL BE PVC AND SHALL BE FILLED WITH AN APPROVED MATERIAL (POLYWATER FST OR EQUAL) TO PREVENT CIRCULATION OF WARM AIR TO A COLDER SECTION OF THE RACEWAY.

20. PROVIDE PULL WIRE IN ALL EMPTY CONDUITS.

21. INSTALLATION OF ALL LIGHTING FIXTURES SHALL INCLUDE ALL NECESSARY CONDUIT (SOLID OR FLEXIBLE), WIRING, JUNCTION BOXES, ETC., FOR CIRCUIT DEVICES.

22. ALL FEEDER AND BRANCH CIRCUITS SHALL INCLUDE GROUNDING CONDUCTORS SIZED IN ACCORDANCE WITH THE NEC.

23. ALL NEW MATERIALS AND EQUIPMENT SHALL BE LISTED AND/OR LABELED BY U.L., ETL, CSA OR ANOTHER RECOGNIZED TESTING LAB.

24. ALL MATERIALS AND EQUIPMENT SHALL BE NEW AND INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S DIRECTIONS AND RECOMMENDATIONS.

25. CORING AND PENETRATIONS: FURNISH AND INSTALL ALL SLEEVES THRU WALLS AND CORING THRU FLOORS. ANY CUTTING, DRILLING OR CORING SHALL BE DONE WET TO MINIMIZE SPREAD OF DUST. WEATHERPROOF ALL PENETRATIONS THRU FOUNDATION AND EXTERIOR WALLS. FIREPROOF ALL CONDUITS OPENINGS BETWEEN FLOORS AND ANY INTERSPACE FIRE SEPARATION WALLS WITH AN APPROVED UL LISTED FIRE RETARDANT MATERIAL.

26. ALL 120 VOLT CIRCUITS SHALL HAVE A DEDICATED NEUTRAL.

27. THE TOTAL VOLTAGE DROP ACROSS THE COMBINATION OF FEEDERS AND BRANCH CIRCUITS SHALL NOT EXCEED FIVE (5) PERCENT.

28. LIGHTING SYSTEM FUNCTIONAL TESTING:

A. FUNCTIONAL TESTING SHALL BE PERFORMED IN COMPLIANCE WITH THE IECC BY THE GENERAL CONTRACTOR TO ENSURE THAT THE HARDWARE IS CALIBRATED, ADJUSTED, PROGRAMMED AND IN PROPER WORKING CONDITION IN ACCORDANCE WITH THE CONSTRUCTION DOCUMENTS AND MANUFACTURER'S INSTALLATION INSTRUCTIONS.

B. TESTING SHALL CONFIRM THAT THE PLACEMENT, SENSITIVITY AND TIME-OUT ADJUSTMENTS FOR OCCUPANT SENSORS YIELD ACCEPTABLE PERFORMANCE.

C. CONFIRM THAT THE TIME SWITCHES AND PROGRAMMABLE SCHEDULE CONTROLS ARE PROGRAMMED TO TURN THE LIGHTS OFF.

29. SUBSTITUTIONS: CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DESIGN MODIFICATIONS RESULTING FROM EQUIPMENT SUBSTITUTED FROM THAT WHICH IS SPECIFIED. MODIFICATIONS INCLUDE BUT NOT LIMITED TO: REQUIRED WORKING AND CODE CLEARANCES, LOCATIONS AND DIMENSIONS OF OPENINGS, STRUCTURAL COORDINATION, BREAKER, WIRE, CONDUIT SIZES. SUBSTITUTIONS OF LIGHT FIXTURES SHALL BE VERIFIED COMPLIANT WITH THE ENERGY CODE BY THE CONTRACTOR. CONTRACTOR SHALL PROVIDE REVISED COMCHK TO AHJ IF NECESSARY. SUBSTITUTIONS OF LIGHT FIXTURES SHALL BE VERIFIED BY CONTRACTOR TO HAVE SAME PHOTOMETRIC DISTRIBUTION AS LIGHT FIXTURES SPECIFIED.

30. SHOP DRAWINGS:

A. SUBMIT COORDINATED SHOP DRAWINGS FOR ALL EQUIPMENT, CONDUIT, WIRE AND TIME CLOCK, ETC.

B. SUBMIT ALL SHOP DRAWINGS FOR REVIEW AND APPROVAL TO ARCHITECT'S OFFICE PRIOR TO PURCHASE, FABRICATION, AND INSTALLATION.

C. CONTRACTOR SHALL HIGHLIGHT OR SUMMARIZE ANY DEVIATIONS IN THE SHOP DRAWING SUBMITTALS FROM THE CONTRACT DOCUMENTS.

31. MANUALS: DOCUMENTS DESCRIBED BELOW SHALL BE PROVIDED TO THE BUILDING OWNER WITHIN 90 DAYS OF THE DATE (U.N.O.) OF RECEIPT OF THE CERTIFICATE OF OCCUPANCY.

A. SUBMITTAL DATA STATING EQUIPMENT SIZE AND SELECTED OPTIONS FOR EACH PIECE OF EQUIPMENT REQUIRING MAINTENANCE

B. MANUFACTURER'S OPERATION MANUALS AND MAINTENANCE MANUALS FOR EACH PIECE OF EQUIPMENT REQUIRING MAINTENANCE, EXCEPT EQUIPMENT NOT FURNISHED AS PART OF THE PROJECT. REQUIRED ROUTINE MAINTENANCE ACTIONS SHALL BE CLEARLY IDENTIFIED.

C. NAME AND ADDRESS OF AT LEAST ONE SERVICE AGENCY

D. A NARRATIVE OF HOW EACH SYSTEM IS INTENDED TO OPERATE, INCLUDING RECOMMENDED SET-POINTS

E. AS-BUILT DRAWING(S) OF ELECTRICAL POWER SYSTEMS WITHIN 30 DAYS OF SYSTEM ACCEPTANCE

635 BUTTERFIELD ROAD, SUITE #310
OAKBROOK TERRACE, IL 60181
PHONE (630) 627-6078
WWW.MGN.ENGINEERING
IL DESIGN FIRM: #184001114
CONSULTING ENGINEERS, SINCE 1967.

DOWNTOWN ORLAND PARK
PARCEL H
ORLAND PARK, ILLINOIS

REV.	DESCRIPTION	DATE
	ISSUE FOR REVIEW AND COORDINATION	06.25.2025

PROJECT NO.: 25-184

DRAWN BY: EJ

REVIEWED BY: PN

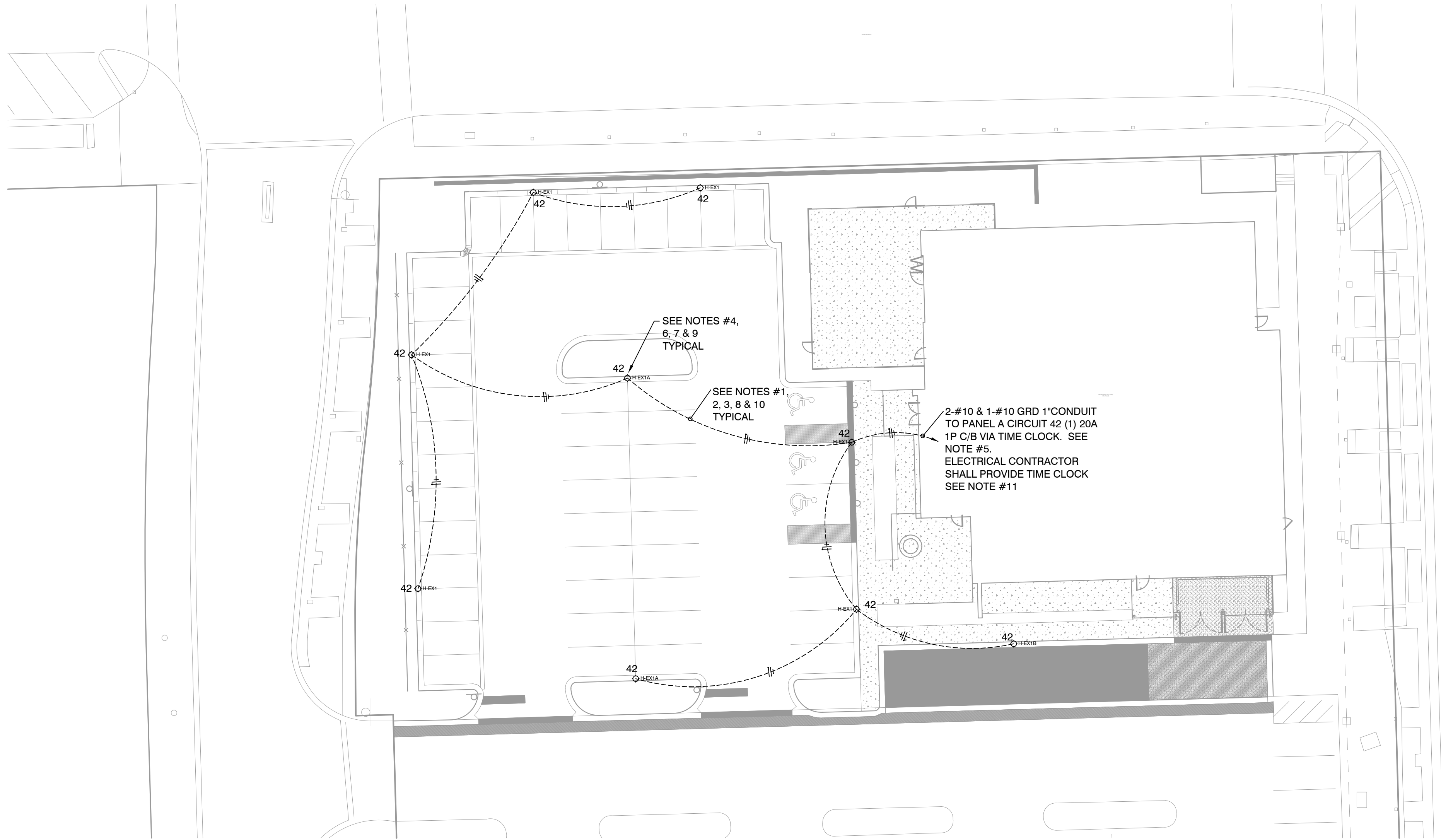
DRAWING TITLE:

ELECTRICAL
NOTES, LEGEND &
ABBREVIATIONS

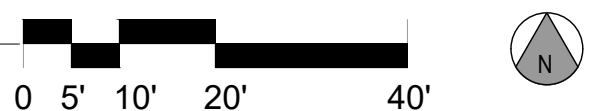
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CAUTION: IF THIS SHEET IS NOT 24x36, IT IS A REDUCED PRINT AND THE NOTED SCALES DO NOT APPLY.

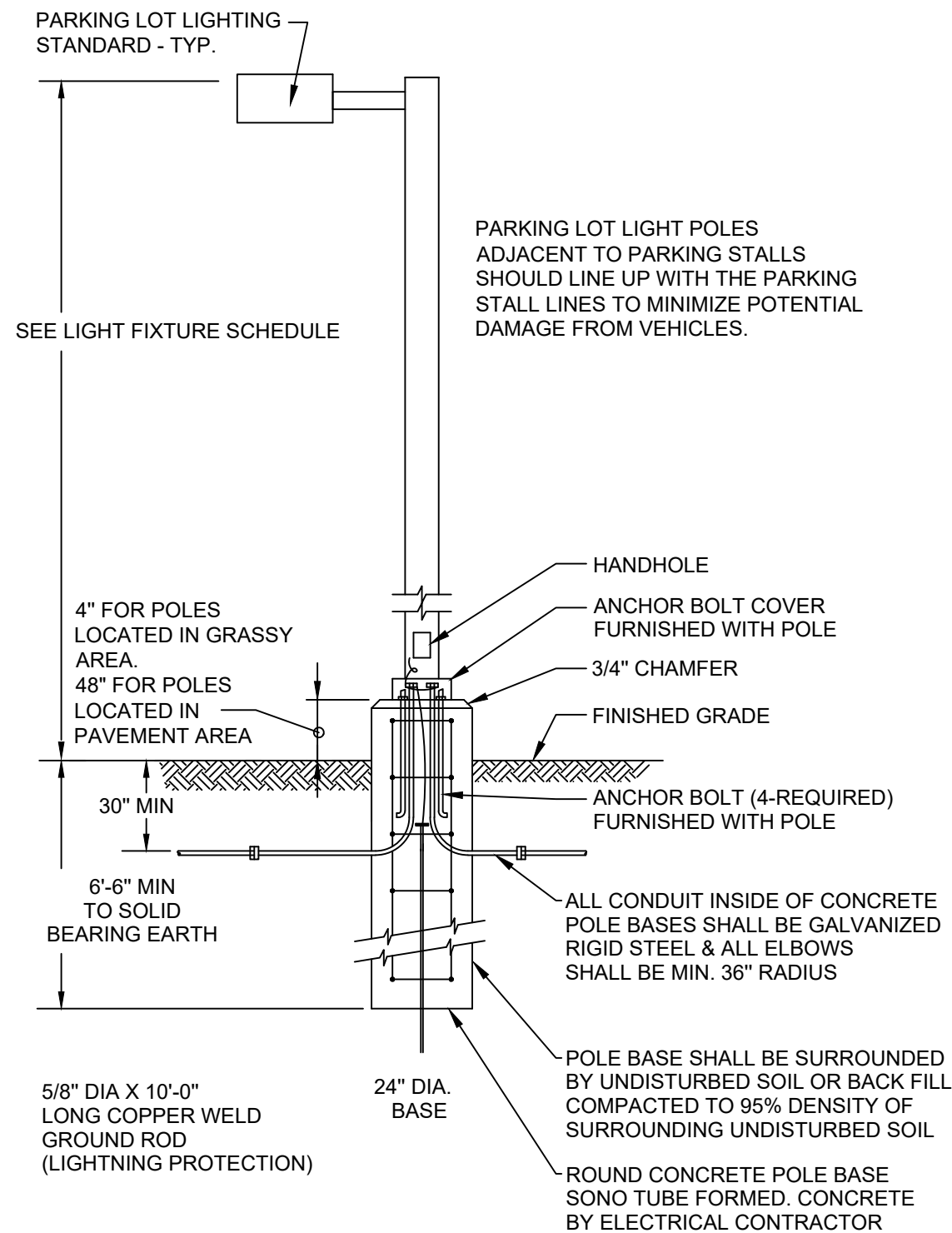


1 ELECTRICAL SITE LIGHTING PLAN
1/8" = 1'-0"



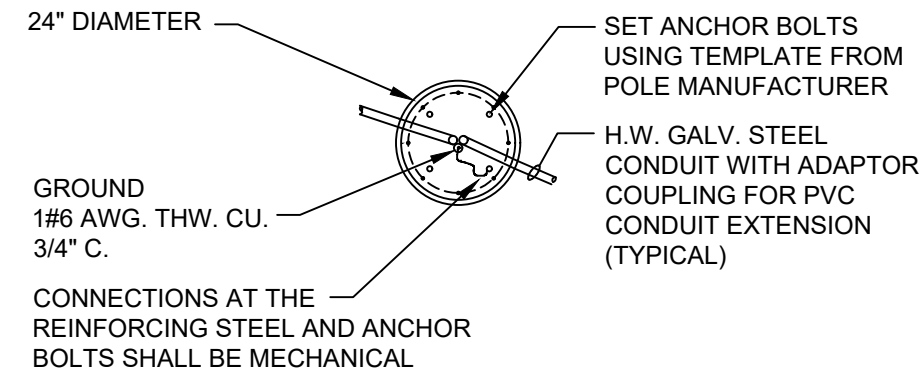
ELECTRICAL SITE PLAN NOTES:

- ALL UNDERGROUND SITE WORK CONDUIT TO BE MINIMUM 36" BELOW FINISHED GRADE AND GALVANIZED RIGID STEEL. MINIMUM CONDUIT 1" TRADE SIZE. MINIMUM WIRE SIZE FOR ALL SITE WORK WIRING SHALL BE #10 AWG.
- ALL CUTTING, TRENCHING, CORING, BACKFILLING AND COMPACTING FOR THE ELECTRICAL INSTALLATION IS BY THE ELECTRICAL CONTRACTOR. ALL EXCESS DEBRIS FROM CUTTING, TRENCHING AND CORING SHALL BE COMPLETELY REMOVED FROM THE SITE BY THE ELECTRICAL CONTRACTOR. IF EXISTING SPOILS ARE UNSUITABLE, E.C. TO GAIN PERMISSION (IN WRITING) FROM THE ARCHITECT TO REUSE EXISTING SPOILS.
- ELECTRICAL CONTRACTOR SHALL BACKFILL ALL TRENCHES IN LAYERS OF 8" TO 95% DENSITY OF SURROUNDING UNDISTURBED SOIL FOR ALL TRENCHES. ELECTRICAL CONDUITS SHALL BE SURROUNDED WITH A MINIMUM OF 8" OF SAND.
- ELECTRICAL CONTRACTOR SHALL FURNISH AND INSTALL CONDUIT STUBS, GROUND CONNECTIONS, ANCHOR BOLTS AND GROUND RODS. REFER TO "CONCRETE BASE DETAILS" FOR ADDITIONAL REQUIREMENTS. CONCRETE BY ELECTRICAL CONTRACTOR.
- ALL OPENINGS AND PENETRATIONS THROUGH FOUNDATION AND EXTERIOR WALLS CREATED BY FIXTURES AND CONDUITS SHALL BE FILLED WITH WATERPROOF MATERIAL TO PREVENT ANY MOISTURE FROM ENTERING THROUGH THE OPENING.
- EACH POLE SHALL HAVE BUSSMANN IN-LINE FUSES (FUSED PER MANUFACTURER'S SPECIFICATIONS) FOR EACH CIRCUIT CONDUCTOR.
- EACH POLE SHALL BE FURNISHED WITH MINIMUM OF 4" x 6" HAND HOLE AND A GROUNDING LUG CONNECTED TO POLE FOR GROUNDING CONDUCTOR. ALL POLES SHALL BE FURNISHED WITH BOLT COVERS.
- ALL CUTTING OF EXISTING ASPHALT AND CONCRETE SURFACES SHALL BE DOUBLE ROW SAW CUT AND STRAIGHT FROM POINT TO POINT. ALL PATCHING OF EXISTING ASPHALT AND CONCRETE SURFACES SHALL BE PERFORMED BY ELECTRICAL CONTRACTOR.
- E.C. SHALL VERIFY STUB-UP AREA FOR ALL FIXTURES TO INSURE RACEWAY WILL FIT INSIDE CONCRETE BASES. REWORK AS REQUIRED (TYPICAL ALL BASES).
- ALL CONDUIT FEEDERS AND BRANCH CIRCUITS UNDER ROADWAYS, DRIVEWAYS, SIDEWALKS AND PARKING SHALL BE 36" BELOW GRADE IN A 3" CONCRETE ENCASED, FURNISHED AND INSTALLED BY ELECTRICAL CONTRACTOR.
- TIME-CLOCK CONTROLS FOR EXTERIOR LIGHTING HAVE A CLOCK CAPABLE OF BEING PROGRAMMED FOR NOT FEWER THAN 7 DAYS, CAPABLE OF BEING SET FOR SEVEN DIFFERENT DAY TYPE PER WEEK, SHALL INCORPORATE AN AUTOMATIC HOLIDAY SETBACK FEATURE. SHALL HAVE PROGRAM BACKUP CAPABILITIES THAT PREVENT THE LOSS OF PROGRAM AND TIME SETTING FOR A PERIOD OF NOT LESS THAN 10 HOURS IN THE EVENT THAT THE POWER IS INTERRUPTED. THE PARKING LOT LIGHTS SHALL BE CONTROLLED SO THAT THE TOTAL WATTAGE OF THE LIGHTS IS AUTOMATICALLY REDUCE BY NOT LESS THAT 50 PERCENT NOT LATER THAN ONE HOURS AFTER BUSINESS CLOSING TO NOT EARLIER THAN ONE HOUR BEFORE BUSINESS OPENING.

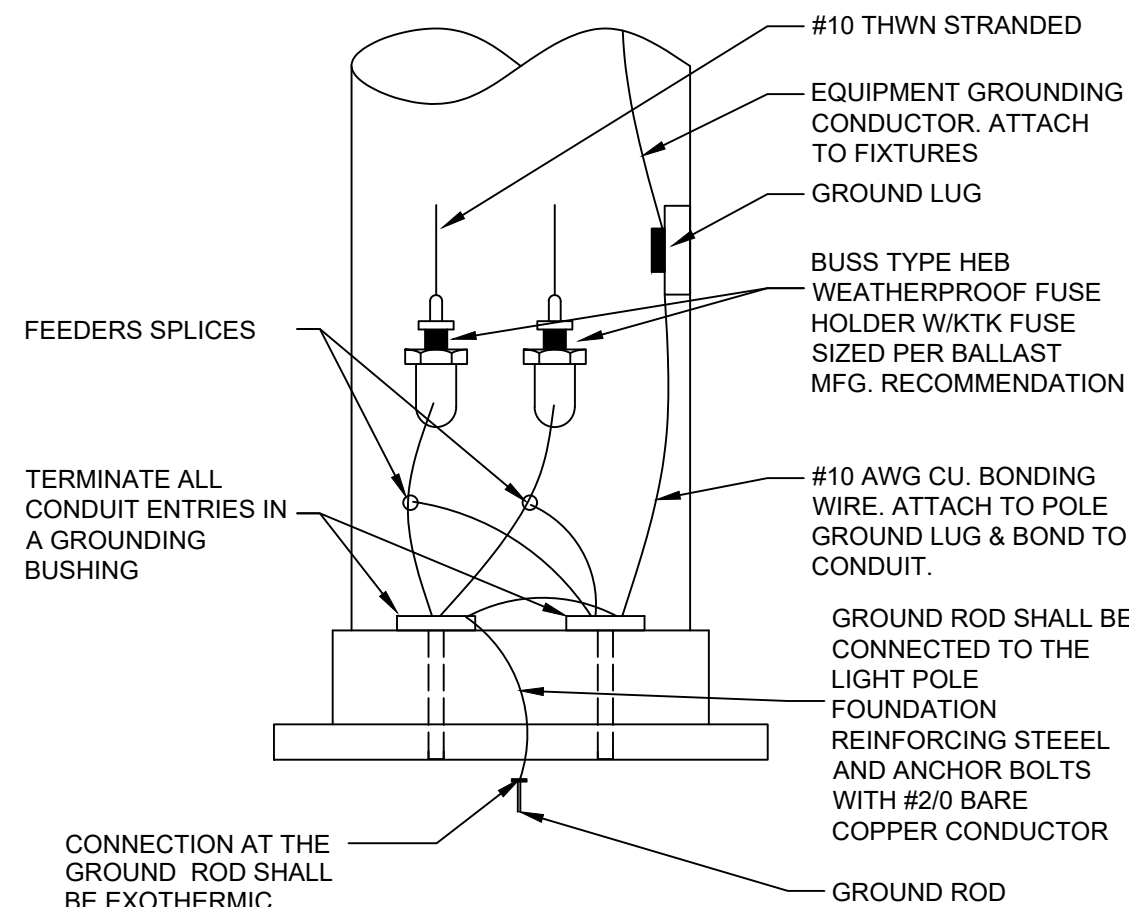


2 PARKING LOT LIGHT BASE DETAIL
NO SCALE

NOTE INSTALLING CONTRACTOR SHALL BE RESPONSIBLE FOR THE FOLLOWING:
THE POLE BASE TO BE INSTALLED SHALL BE DESIGNED AND APPROVED BY A LICENSED STRUCTURAL ENGINEER IN THE STATE OF ILLINOIS. (EFFECTIVE PROJECTED AREA, EPA WIND LOADING REQUIREMENTS TO BE DETERMINED, FOR FINAL BASE SIZE) DIMENSION INDICATED TO BE VERIFIED BY STRUCTURAL ENGINEER.



3 TOP VIEW OF PARKING LOT LIGHT BASE
WITH COVER PLATE REMOVED
NO SCALE



4 PARKING LOT LIGHT WIRING DETAIL
NO SCALE



MGN, INC.
635 BUTTERFIELD ROAD, SUITE #310
OAKBROOK TERRACE, IL 60181
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DOWNTOWN ORLAND PARK
PARCEL H
ORLAND PARK, ILLINOIS

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