

ITEM NO. 3A

INDEX OF SHEETS

SHEET NO.	TITLE
1	COVER SHEET
2	SUMMARY OF QUANTITIES
3	SITE PLAN AND GENERAL NOTES
4	CONSTRUCTION AND SAFETY NOTES AND DETAILS
5	PAVEMENT DETAILS
6	SIDEWALK DETAILS
7	JOINTING PLAN AND DETAILS
8	SLAB ELEVATIONS AND STAKING
9	CROSS SECTIONS
10	CROSS SECTIONS
11	DRAINAGE PLAN
12	DRAINAGE DETAILS
13	UTILITY PLAN
14	ELECTRICAL DETAILS
15	SANITARY SEWER PLAN
16	SANITARY SEWER DETAILS
17	WATER MAIN PLAN
18	WATER MAIN DETAILS
19	WATER MAIN DETAILS
20	MARKING PLAN AND DETAILS
21	STORM WATER POLLUTION PREVENTION PLAN
22	STORM WATER POLLUTION PREVENTION DETAILS

IDA LETTING DATE: MARCH 5, 2010

WA060
TOTAL SHEETS = 22

CONSTRUCTION PLANS

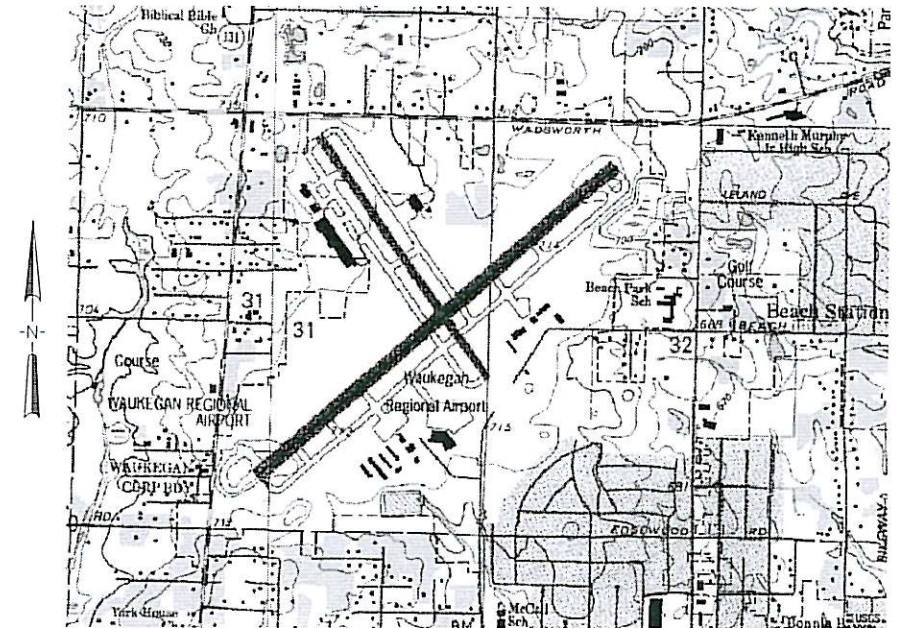
PAVING, GRADING AND UTILITIES FOR
SNOW REMOVAL EQUIPMENT BUILDING

2601 PLANE REST DRIVE

WAUKEGAN PORT DISTRICT
WAUKEGAN REGIONAL AIRPORT (UGN)
WAUKEGAN, LAKE COUNTY, ILLINOIS

AIP PROJECT NO. 3-17-0105-B43
IDA PROJECT NO. UGN-3887

VICINITY MAP



SHEET NO. 1 OF 22

NOTICE TO CONTRACTORS AND BIDDERS

THESE CONSTRUCTION PLANS RELY UPON THE SPECIAL PROVISIONS AND THE SPECIFICATIONS TO PROVIDE FOR A COMPLETE DESCRIPTION OF THE WORK AND CONSTRUCTION REQUIREMENTS. THE PLANS SHALL ONLY BE USED IN COMBINATION WITH ALL CONTRACT DOCUMENTS.

No.	Issue/Description	Sheets Changed	Date	By



Date of Plans

Exp. 11/30/11

JANUARY 8, 2010

Lindsay D. Hausman, P.E.




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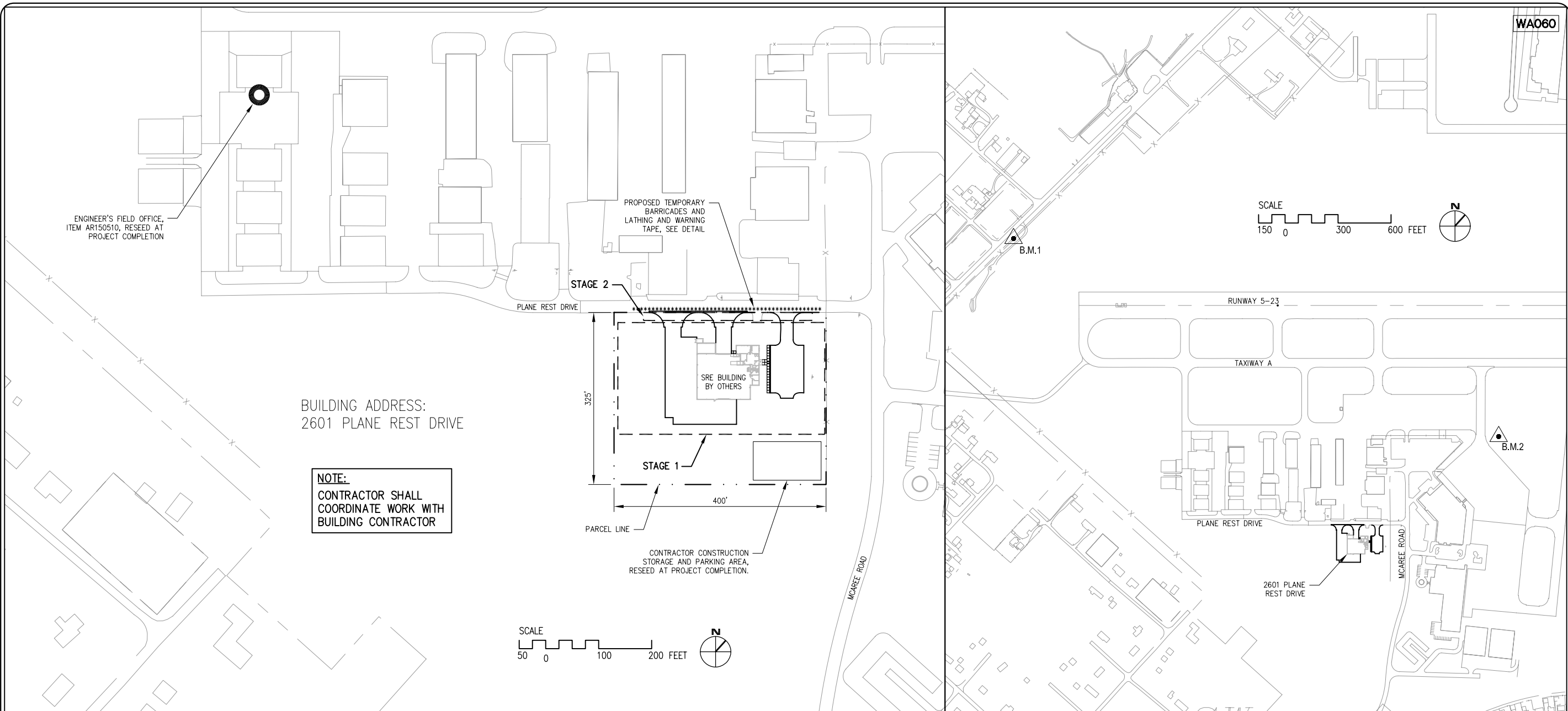
WAUKEGAN REGIONAL AIRPORT
 WAUKEGAN PORT DISTRICT
 3580 North McAree Road
 Waukegan, Illinois 60087
 Telephone: 847.244.0066
 Fax: 847.244.3813

SUMMARY OF QUANTITIES

Number	Description	Unit	Quantity	
			As Bid	Record Paid
AR110502	2-Way Concrete Encased Duct	Linear Foot	72.0	
AR110504	4-Way Concrete Encased Duct	Linear Foot	30.0	
AR110600	Concrete Utility Pad	Each	1.0	
AR150510	Engineer's Field Office	Lump Sum	1.0	
AR152410	Unclassified Excavation	Cubic Yard	1,575.0	
AR156510	Silt Fence	Linear Foot	1,100.0	
AR156520	Inlet Protection	Each	3.0	
AR156544	Riprap - Gradation No. 4	Square Yard	70.0	
AR201610	Bituminous Base Course	Ton	100.0	
AR209606	Crushed Agg. Base Course - 6"	Square Yard	2,086.0	
AR209612	Crushed Agg. Base Course - 12"	Square Yard	851.0	
AR401610	Bituminous Surface Course	Ton	100.0	
AR401665	Bituminous Pavement Sawing	Linear Foot	220.0	
AR401900	Remove Bituminous Pavement	Square Yard	35.0	
AR501507	7" PCC Pavement	Square Yard	2,022.0	
AR501530	PCC Test Batch	Each	1.0	
AR501604	4" PCC Sidewalk	Square Foot	582.0	
AR602510	Bituminous Prime Coat	Gallons	256.0	
AR603510	Bituminous Tack Coat	Gallons	128.0	
AR620520	Pavement Marking - Waterborne	Square Foot	235.0	
AR701515	15" RCP, Class IV	Linear Foot	113.0	
AR701518	18" RCP, Class IV	Linear Foot	238.0	
AR751540	Manhole 4'	Each	3.0	
AR752418	Precast Reinforced Conc. FES 18"	Each	1.0	
AR752518	Grating for Conc. FES 18"	Each	1.0	
AR754410	Comb. Concrete Curb and Gutter	Linear Foot	90.0	
AR760506	6" Ductile Iron Water Main	Linear Foot	95.0	
AR760800	Fire Hydrant	Each	1.0	
AR770504	4" Sanitary Sewer	Linear Foot	8.0	
AR800900	Valve Box	Each	1.0	
AR800902	Water Main Connection	Each	2.0	
AR800903	Saw & Seal Butt Joint	Linear Foot	255.0	
AR800905	Twin 4" PVC Duct, Direct Bury	Linear Foot	245.0	
AR800913	Sanitary Sewer Connection	Each	2.0	
AR800933	Telephone Cable, Direct Bury	Linear Foot	395.0	
AR800989	12" DIP for Storm Sewer	Linear Foot	91.9	
AR901510	Seeding	Acre	0.7	
AR905510	Topsoiling (From On Site)	Cubic Yard	350.0	
AR908510	Mulching	Acre	0.7	
AR910230	Handicap Sign	Each	2.0	
AR910410	Parking Block	Each	10.0	

REVISION					
DATE					
WAUKEGAN REGIONAL AIRPORT WAUKEGAN, LAKE COUNTY, ILLINOIS					
Hanson No.	83105A8001	LAYOUT	LDH	1/15/09	
Filename		DRAWN	LDH	1/15/09	
Scale	2/27/09	REVIEWED	RMH	2/23/09	
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 © Copyright Hanson Professional Services Inc. 2010 Hanson Professional Services Inc. 1525 South Sixth Street Springfield, Illinois 62703-2886					
SUMMARY OF QUANTITIES SNOW REMOVAL EQUIPMENT BUILDING					
2					
of 22 sheets					

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GENERAL NOTES

PROJECT DESCRIPTION

THIS PROJECT IS IN PREPARATION FOR CONSTRUCTION OF A SNOW REMOVAL EQUIPMENT BUILDING AT WAUKEGAN REGIONAL AIRPORT, INCLUDING, AMONG OTHER INCIDENTAL WORK, THE FOLLOWING ITEMS:

- PROVIDE GRADING
- INSTALL STORM WATER DRAINAGE SYSTEM
- EXTEND ELECTRIC, TELEPHONE, WATER, GAS AND SANITARY SEWER TO THE BUILDING
- CONSTRUCT PCC ACCESS AND APRON PAVEMENT
- CONSTRUCT BITUMINOUS ASPHALT AUTO PARKING
- TOPSOIL, SEED AND MULCH

ALL WORK SHALL BE COORDINATED WITH THE BUILDING CONSTRUCTION CONTRACTOR. THIS COORDINATION SHALL INCLUDE, AT NO ADDITIONAL COST TO THIS CONTRACT, TEMPORARY WORK SUSPENSIONS AND "OUT-OF-SEQUENCE" WORK BY THIS CONTRACTOR THAT MAY BE NECESSARY TO PROVIDE THE NECESSARY COORDINATED CONSTRUCTION OF UTILITY CONNECTIONS AND PAVEMENT CONSTRUCTION ADJACENT TO BUILDING FOUNDATION WORK.

PROTECTION OF EXISTING AIRPORT FACILITIES

THE CONTRACTOR IS TO BE RESPONSIBLE FOR THE PROTECTION OF EXISTING UNDERGROUND AND OVERHEAD UTILITIES AND LIGHTING EQUIPMENT; DRIVEWAY AND ROAD PAVEMENT AND SHOULDERS; RUNWAY, TAXIWAY AND APRON PAVEMENTS AND SHOULDERS; RUNWAY, TAXIWAY AND AIRPORT LIGHTING EQUIPMENT; AND SEEDED AND TURFED AREAS THAT ARE UTILIZED IN OR AFFECTED BY THE CONTRACTOR'S ACTIVITIES. ITEMS DAMAGED BY THE CONTRACTOR ARE TO BE REPAIRED AT CONTRACTOR'S EXPENSE AND TO THE SATISFACTION OF AIRPORT MANAGER AND THE OWNER'S REPRESENTATIVE.

IN ADDITION WHEN CONDITIONS DICTATE OR AS DETERMINED BY THE AIRPORT MANAGER OR THE OWNER'S REPRESENTATIVE, THE CONTRACTOR SHALL BE REQUIRED TO USE A PICK-UP TYPE SWEEPER IN ALL ACTIVE CONSTRUCTION AIRFIELD PAVEMENT AREAS. THE CONTRACTOR WILL BE REQUIRED TO HAVE A SWEEPER AVAILABLE FOR USE AT ALL TIMES. THE COST OF SWEEPING SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING THE FAA (SMO) THROUGH THE RESIDENT ENGINEER TO LOCATE ALL FAA CABLES ON THE PROJECT SITE. ALL FAA CABLES SHALL BE PROTECTED AT ALL TIMES.

CONTRACTOR'S ACCESS AND TEMPORARY FACILITIES

CONTRACTOR'S ACCESS TO THE PROJECT WHEN ON AIRPORT PROPERTY IS SHOWN ON THIS SHEET. CONTRACTOR'S ACCESS TO THE AIRPORT ITSELF IS TO BE PROVIDED BY PUBLIC RIGHTS-OF-WAY. THE CONTRACTOR IS TO SECURE ALL NECESSARY PERMITS FOR THE USE OF ANY PUBLIC RIGHTS-OF-WAY AND IS TO MAINTAIN TRAFFIC ON THESE PUBLIC ROADS AT ALL TIMES, WITH THE COSTS OF PERMITTING, CLEANING AND REPAIRING OF PAVEMENT DAMAGED BY CONTRACTOR'S ACTIVITIES INCIDENTAL TO THE CONTRACT. USE OF AND REPAIRS TO ANY PUBLIC FACILITIES ARE TO BE COMPLETED TO THE SATISFACTION OF THE FACILITY'S OWNER.

THE CONTRACTOR IS TO PROVIDE TEMPORARY CONSTRUCTION ROADS WITHIN THE CONSTRUCTION LIMIT LINES AS MAY BE REQUIRED BY HIS ACTIVITIES. HEAVY VEHICLES SHALL NOT CROSS EXISTING PAVEMENT SURFACES EXCEPT AS APPROVED BY THE AIRPORT MANAGER AND THE OWNER'S REPRESENTATIVE. ANY DAMAGE TO PAVEMENTS THAT MAY OCCUR BY THE CONTRACTOR'S ACTIVITIES SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE AND TO THE SATISFACTION OF THE AIRPORT MANAGER AND THE OWNER'S REPRESENTATIVE.

THE CONTRACTOR IS TO PROVIDE AN EQUIPMENT, STORAGE AND PARKING AREA AT THE LOCATIONS SHOWN ON THIS SHEET. IT IS THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN THE ACCESS ROADS AND THE STORAGE AREA DURING CONSTRUCTION AND TO RESTORE THE AREAS AT PROJECT COMPLETION TO CONDITIONS SUITABLE TO THE AIRPORT MANAGER AND THE OWNER'S REPRESENTATIVE. AT THE AIRPORT MANAGER'S DISCRETION, THE TEMPORARY FACILITIES MAY REMAIN, BUT THEY MUST BE LEFT IN CONDITIONS SUITABLE TO THE AIRPORT MANAGER. THE COST OF PROVIDING, MAINTAINING AND RESTORING THE TEMPORARY FACILITIES IS INCIDENTAL TO THE CONTRACT.

RESPONSIBILITY FOR EXISTING UTILITIES

THE LOCATION, SIZE AND/OR TYPE OF MATERIAL OF EXISTING UNDERGROUND OR OVERHEAD UTILITIES AS MAY BE INDICATED ON THESE CONSTRUCTION PLANS IS NOT REPRESENTED AS BEING ACCURATE, SUFFICIENT OR COMPLETE. NEITHER THE OWNER NOR THE PROJECT ENGINEER HAVE INDEPENDENTLY VERIFIED THIS INFORMATION AND NEITHER ASSUMES ANY RESPONSIBILITY WHATSOEVER IN RESPECT TO THE ACCURACY, SUFFICIENCY OR COMPLETENESS OF THE INFORMATION AND GIVE NO EXPRESSED OR IMPLIED GUARANTEE THAT ANY CONDITIONS INDICATED ARE REPRESENTATIVE OF ACTUAL CONDITIONS TO BE ENCOUNTERED.

IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE ACTUAL LOCATION OF ALL SUCH FACILITIES, INCLUDING SERVICE CONNECTIONS TO UNDERGROUND UTILITIES. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES AND AGENCIES OF HIS CONSTRUCTION PLANS AND SHALL OBTAIN FROM EACH PARTY DETAILED INFORMATION AND ASSISTANCE RELATIVE TO THE LOCATION OF ALL UTILITIES AND THE WORKING SCHEDULE OF ANY REMOVALS OR ADJUSTMENTS REQUIRED OF THE UTILITY. THE CONTRACTOR SHALL CONTACT J.U.L.I.E. (PHONE 800-892-0123) TO ASSIST IN THE ABOVE.

THE CONTRACTOR SHALL PROTECT ANY FACILITIES TO THE SATISFACTION OF THE UTILITY OR OWNING-AGENCY WITH THE COST OF ANY REQUIRED PROTECTION TO BE INCIDENTAL TO THE CONTRACT. IN THE EVENT A UTILITY LINE OR SERVICE IS UNEXPECTEDLY ENCOUNTERED DURING CONSTRUCTION, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OWNER'S REPRESENTATIVE AND THE UTILITY COMPANY OR AGENCY OF JURISDICTION. ANY SUCH UTILITIES DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE RESTORED TO SERVICE IMMEDIATELY.

AIRPORT SECURITY

THE CONTRACTOR IS TO COORDINATE GATE SECURITY, THROUGH THE RESIDENT ENGINEER, WITH THE AIRPORT MANAGEMENT. AIRPORT SECURITY SHALL BE MAINTAINED AT ALL TIMES.

EXISTING BENCHMARK

BENCHMARK IS AS FOLLOWS:

- ▲ ELEVATION 721.34
 B.M.1 STEEL ROD SET IN 6" LOGO CAP
 LOCATION: 36.5 FEET EAST OF RT. 131 (GREEN BAY RD.), 230 FEET SOUTH OF SUDDARD ST., 101 FEET NORTH OF CENTER ST.
 COORDINATES: N 2094502.438 E 1107324.042
- ▲ ELEVATION 708.29
 B.M.2 COORDINATES: N 2095499.384 E 1110118.012

NOTES

1. MAXIMUM HEIGHT OF CONTRACTOR'S EQUIPMENT 25 FEET FOR ALL WORK, EXCEPT BY PRIOR APPROVAL OF THE ENGINEER (SEE SPECIAL PROVISIONS).
2. TRAFFIC TO BE MAINTAINED ON ALL AIRPORT ROADWAYS. PLANE REST DRIVE TO BE CLOSED ONLY WHEN WORK IS WITHIN 15 FEET OF THE ROAD. WORK IN THIS AREA SHALL BE EXPEDITED TO MINIMIZE THIS CLOSURE.



PROJECT IS LOCATED IN
 E 1/2 OF SECTION 31
 W 1/2 OF SECTION 32
 BENTON TOWNSHIP, LAKE COUNTY

REVISION	DATE

WAUKEGAN REGIONAL AIRPORT
 WAUKEGAN, LAKE COUNTY, ILLINOIS

Hanson No.	83105A8001	
Filename		
Scale	2/27/09	
Date		
LAYOUT	LDH	1/15/09
DRAWN	LDH	1/15/09
REVIEWED	RMH	2/23/09

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 Springfield, Illinois 62703-2886

SITE PLAN AND GENERAL NOTES
 SNOW REMOVAL EQUIPMENT BUILDING

CONSTRUCTION AND SAFETY NOTES

SEQUENCE OF CONSTRUCTION

TO MINIMIZE DISRUPTIONS TO AIRPORT OPERATIONS, CONSTRUCTION OPERATIONS MUST BE CONTROLLED THROUGHOUT THE PROJECT'S DURATION AND WORK MUST BE COMPLETED EXPEDITIOUSLY. THE CONTRACTOR IS TO PREPARE AND FOLLOW A STAGING PLAN THAT COORDINATES HIS WORK WITH THE WORK OF HIS SUBCONTRACTORS AND THE WORK OF OTHER CONTRACTORS ON-FIELD. THIS STAGING PLAN MUST BE SATISFACTORY TO THE PROJECT ENGINEER AND THE AIRPORT DIRECTOR. THE CONTRACTOR SHALL EXPEDITE WORK AT THOSE STAGES WHEN ACTIVE ROADWAYS OR PARKING LOTS MUST BE CLOSED TO MINIMIZE THE LENGTH OF TIME THAT AIRPORT OPERATIONS ARE RESTRICTED.

LATHING AND WARNING TAPE

THE PROJECT WILL REQUIRE THE PLACEMENT OF LATHING AND WARNING TAPE TO DELINEATE THE WORK AREA FROM ACTIVE AIRPORT OPERATIONS AREAS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE, PLACE AND MAINTAIN LATHING AND WARNING TAPE SHOWN ON SHEET 3, AND IN DETAIL A, THIS SHEET, AND AS DIRECTED BY THE RESIDENT ENGINEER AND THE AIRPORT DIRECTOR. THE CONTRACTOR WILL FURNISH, PLACE, MAINTAIN AND RELOCATE THE LATHING AND WARNING TAPE AS REQUIRED. THE COST OF THESE ITEMS, AND THEIR MAINTENANCE, IS TO BE INCIDENTAL TO THE CONTRACT.

TEMPORARY BARRICADES ON AIRFIELD

THE PROJECT WILL REQUIRE THE PLACEMENT OF BARRICADES TO DELINEATE PORTIONS OF THE CONSTRUCTION AREA AND TO EFFECT TEMPORARY CLOSURES OF ACTIVE ROADWAY. IT WILL BE THE CONTRACTOR'S RESPONSIBILITY TO FURNISH, PLACE AND MAINTAIN BARRICADES AS SHOWN ON SHEET 3, AND IN DETAIL B, THIS SHEET, AND AS DIRECTED BY THE RESIDENT ENGINEER AND AIRPORT DIRECTOR. THE COST OF THESE ITEMS, AND THEIR MAINTENANCE, IS TO BE INCIDENTAL TO THE CONTRACT. ANY WORK THAT REQUIRES PORTIONS OF AN ACTIVE TAXIWAY OR APRON TO BE CLOSED MUST BE COMPLETED EXPEDITIOUSLY TO MINIMIZE DISRUPTION TO AIRCRAFT OPERATIONS.

OPEN TRENCHES, EXCAVATIONS AND STOCKPILED MATERIAL AT THE CONSTRUCTION SITE SHALL BE DELINEATED WITH THE USE OF BARRICADES DURING HOURS OF RESTRICTED VISIBILITY AND/OR DARKNESS.

RUNWAY CLOSURE

NO CLOSURES OF ANY RUNWAYS WILL BE PERMITTED.

VEHICULAR TRAFFIC CONTROL

IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE AND PLACE ROAD WARNING SIGNS AND BARRICADES ON THE EXISTING ROADWAYS PRIOR TO THE START OF CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE, INSTALL AND RELOCATE THE ITEMS AS REQUIRED. THE COST OF THIS WORK IS TO BE INCIDENTAL TO THE CONTRACT.

CONTRACTOR SHALL PROVIDE, INSTALL AND REMOVE ALL TRAFFIC CONTROL ITEMS WHEN CONSTRUCTION ACTIVITIES ARE WITHIN 15 FEET OF AN ACTIVE ROADWAY EDGE OR AS REQUIRED BY THE SITE PLAN. COST OF THIS WORK IS TO BE INCIDENTAL TO THE CONTRACT.

AIRFIELD OPERATIONAL SAFETY DURING CONSTRUCTION

ALL CONSTRUCTION TRAFFIC AND PERSONNEL SHALL REMAIN WITHIN THE CONSTRUCTION LIMIT LINE SHOWN ON THE SITE PLAN FOR THE CURRENT WORK. CONTRACTOR'S PERSONNEL AND EQUIPMENT MUST REMAIN AT LEAST 200 FEET FROM THE CENTERLINE OF ACTIVE RUNWAYS, 1,000 FEET FROM THE END OF ACTIVE RUNWAYS, 65.5 FEET FROM THE CENTERLINE OF ACTIVE TAXIWAYS, 44.5 FEET FROM T-HANGAR TAXILANES AND 10 FEET FROM THE EDGE OF ACTIVE APRONS.

WHEN IT IS NECESSARY FOR CONSTRUCTION VEHICLES TO OPERATE ON OR WITHIN THESE LIMITS, THE RUNWAY, TAXIWAYS OR APRON MUST BE CLOSED. THE CONTRACTOR WILL PROVIDE POSITIVE CONTROL OF CONSTRUCTION VEHICLES USING RADIO-EQUIPPED FLAGGERS. ALL CONTRACTOR'S EQUIPMENT USED IN ACTIVE AIRPORT OPERATIONS AREAS SHALL BE EQUIPPED WITH A FAA-STANDARD FLAG, AS REFERENCED IN FAA AC 150/5370-2, CURRENT ISSUE. AIRCRAFT SHALL HAVE THE RIGHT-OF-WAY. CONSTRUCTION VEHICLES SHALL NOT CROSS AN ACTIVE RUNWAY. THE COST OF ALL TRAFFIC CONTROL, BOTH WITHIN AND OUTSIDE OF AIRPORT OPERATIONS AREAS, IS TO BE INCIDENTAL TO THE CONTRACT.

WHEN NOT IN USE AND DURING NONWORKING HOURS, CONTRACTOR'S EQUIPMENT SHALL BE PARKED WITHIN THE CONTRACTOR'S EQUIPMENT STORAGE AND PARKING AREAS. THE EQUIPMENT STORAGE AND PARKING AREAS ARE TO BE LOCATED AS SHOWN ON THE SITE PLAN, SHEET 3. THE CONTRACTOR WILL BE RESPONSIBLE FOR MAINTAINING THE CONSTRUCTION ENTRANCE IN GOOD CONDITION. THE COST OF MAINTAINING THE CONSTRUCTION ENTRANCE IS TO BE INCIDENTAL TO THE CONTRACT.

AT NO TIME SHALL THE CONTRACTOR OPERATE OR PARK EQUIPMENT SO AS TO OBSTRUCT AN ACTIVE RUNWAY APPROACH SURFACE.

BEFORE REOPENING TEMPORARILY CLOSED RUNWAYS, TAXIWAYS OR ROADWAYS, THE CONTRACTOR SHALL INSPECT AND CLEAN, AS NECESSARY, THE PAVEMENT TO ASSURE THAT NO MATERIALS OR OBJECTS THAT MAY DAMAGE AIRCRAFT OR VEHICLES REMAIN. ANY REQUIRED CLEANING SHALL BE TO THE SATISFACTION OF THE RESIDENT ENGINEER AND AIRPORT OWNER AND IS INCIDENTAL TO THE CONTRACT.

ALL CONTRACTOR EQUIPMENT IS LIMITED TO A HEIGHT OF 25 FEET.

NOTIFICATIONS BY CONTRACTOR

THE CONTRACTOR SHALL NOTIFY THE RESIDENT ENGINEER AND AIRPORT OWNER 72 HOURS IN ADVANCE OF THE CONTRACTOR'S CLOSING OF OTHER ACTIVE ROADWAYS, AIRFIELD OR ROADWAY LIGHTING CIRCUITS, OR OTHER AIRPORT FACILITIES.

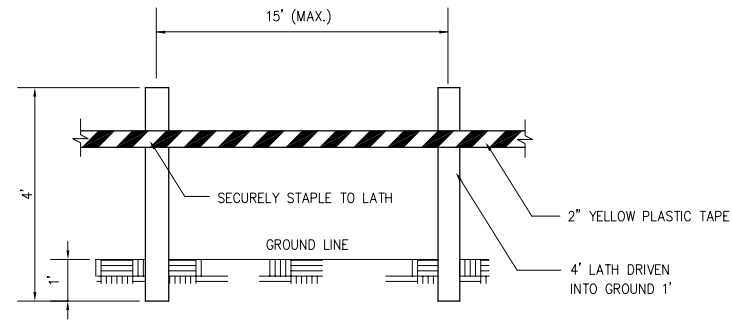
CONTRACTOR'S USE OF SITE

THE CONTRACTOR SHALL NOT OPERATE WITHIN, ENCROACH UPON OR OBSTRUCT AIRPORT OPERATIONAL AREAS, INCLUDING ACTIVE RUNWAY, TAXIWAYS AND APRON SAFETY AREAS, OBJECT AND OBSTACLE FREE ZONES, RUNWAY PROTECTION ZONES AND AIRPORT IMAGINARY SURFACES AS DEFINED IN FEDERAL AVIATION REGULATIONS (FAR) PART 77, "OBJECTS AFFECTING NAVIGABLE AIRSPACE".

THE CONTRACTOR IS RESPONSIBLE FOR RESTORATION OF THE WORK AREA PRIOR TO BEGINNING WORK AT A NEW LOCATION.

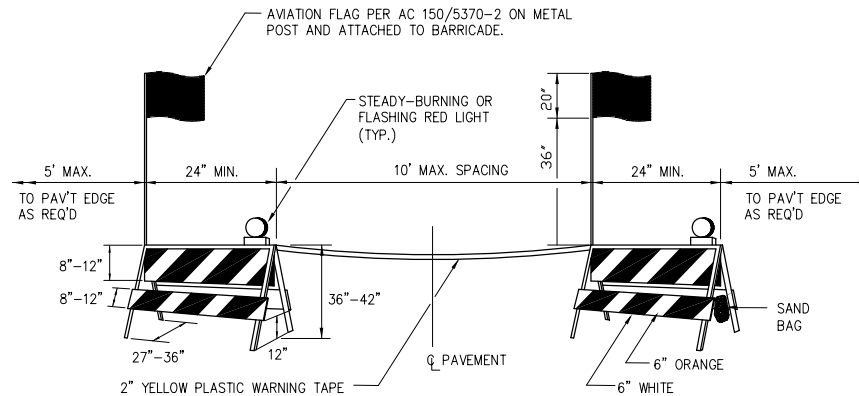
UTILITY OUTAGES AND SHUTDOWNS

THE CONTRACTOR SHALL PROVIDE 72 HOURS PRIOR NOTICE OF ANY OUTAGES OR SHUTDOWNS TO THE OWNER AND THE AGENCY OWNING THE AFFECTED UTILITY. THE CONTRACTOR SHALL PROVIDE ANY TEMPORARY CONNECTIONS OR OTHER MEASURES AS MAY BE REQUIRED TO MAINTAIN SERVICE AS MAY BE REQUIRED BY THE OWNING AGENCY AT NO COST TO THE OWNER.



MATERIALS ARE TO BE APPROVED BY ENGINEER PRIOR TO INSTALLATION. COST OF MATERIALS, INSTALLATION, RELOCATION AND MAINTENANCE OF LATHING AND WARNING TAPE IS TO BE INCIDENTAL TO THE CONTRACT.

**DETAIL A
LATHING AND WARNING TAPE**



BARRICADES ARE TO BE OF IDOT TYPE I. A STEADY-BURNING OR FLASHING RED LIGHT FACING PASSING TRAFFIC IS TO BE MOUNTED ABOVE THE TOP OF EACH BARRICADE FRAME. THE BARRICADE IS TO BE STABILIZED FROM WIND BY SANDBAGS PLACED ON THE FRAME OR OTHER METHODS APPROVED BY THE RESIDENT ENGINEER. NO PART OF THE REFLECTORIZED PORTION OF THE BARRICADE IS TO BE OBSTRUCTED IN ANY MANNER. COST OF FURNISHING, INSTALLING, RELOCATING, MAINTAINING and REMOVING BARRICADES IS TO BE INCIDENTAL TO THE CONTRACT.

**DETAIL B
PAVEMENT BARRICADES**

REVISION	DATE

WAUKEGAN REGIONAL AIRPORT
WAUKEGAN, LAKE COUNTY, ILLINOIS

Hanson No. 83105A8001	Scale 2/27/09	1/15/09
File Name	Date	1/15/09
LAYOUT LDH	DRAWN LDH	REVIEWED RMH
		2/23/09

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1525 South Sixth Street
Springfield, Illinois 62703-2886

SAFETY NOTES AND DETAILS
SNOW REMOVAL EQUIPMENT BUILDING

DETAILS SHOWN ARE NOT TO SCALE

JAN 26, 2010 11:58 AM HALJSM00682 I:\05\JOBS\00831\05A8001\DRAWINGS\SHEETS\04-SAFETY NOTES.DWG

REVISION	DATE

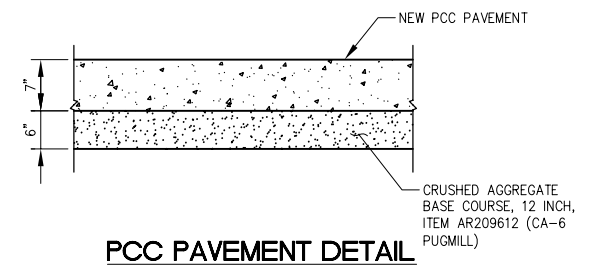
WAUKEGAN REGIONAL AIRPORT
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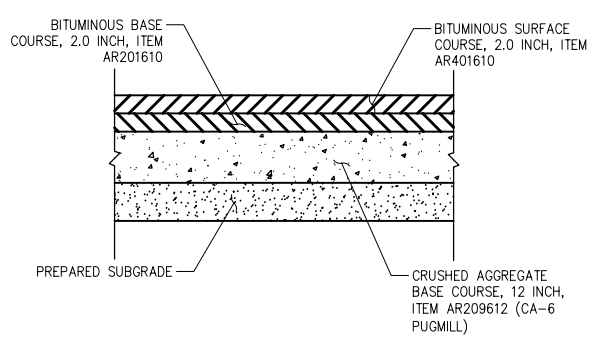
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PAVEMENT DETAILS
SNOW REMOVAL EQUIPMENT BUILDING

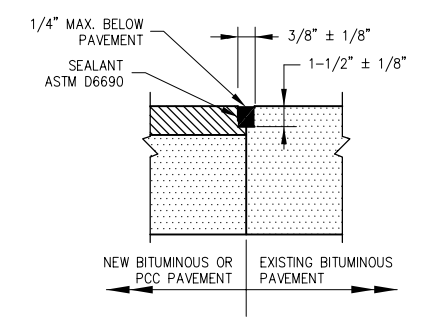


PCC PAVEMENT DETAIL



PREPARED SUBGRADE NOTE:
CUT AREAS - REMOVE TOPSOIL, ADDITIONAL CUT AS NECESSARY TO FINISHED SUBGRADE ELEVATION. ADDITIONAL UNDERCUT IN AREAS DETERMINED BY ROLL TEST.
FILL AREAS - REMOVE TOPSOIL, ADDITIONAL UNDERCUT IN AREAS AS DETERMINED BY ROLL TEST.

PARKING LOT BITUMINOUS PAVEMENT DETAIL



NOTE:
ALL BITUMINOUS/BITUMINOUS AND BITUMINOUS/PCC JOINT SEALING TO BE PAID UNDER SAW AND SEAL BUTT JOINT, ITEM AR800903.

BITUMINOUS/PCC SEAL

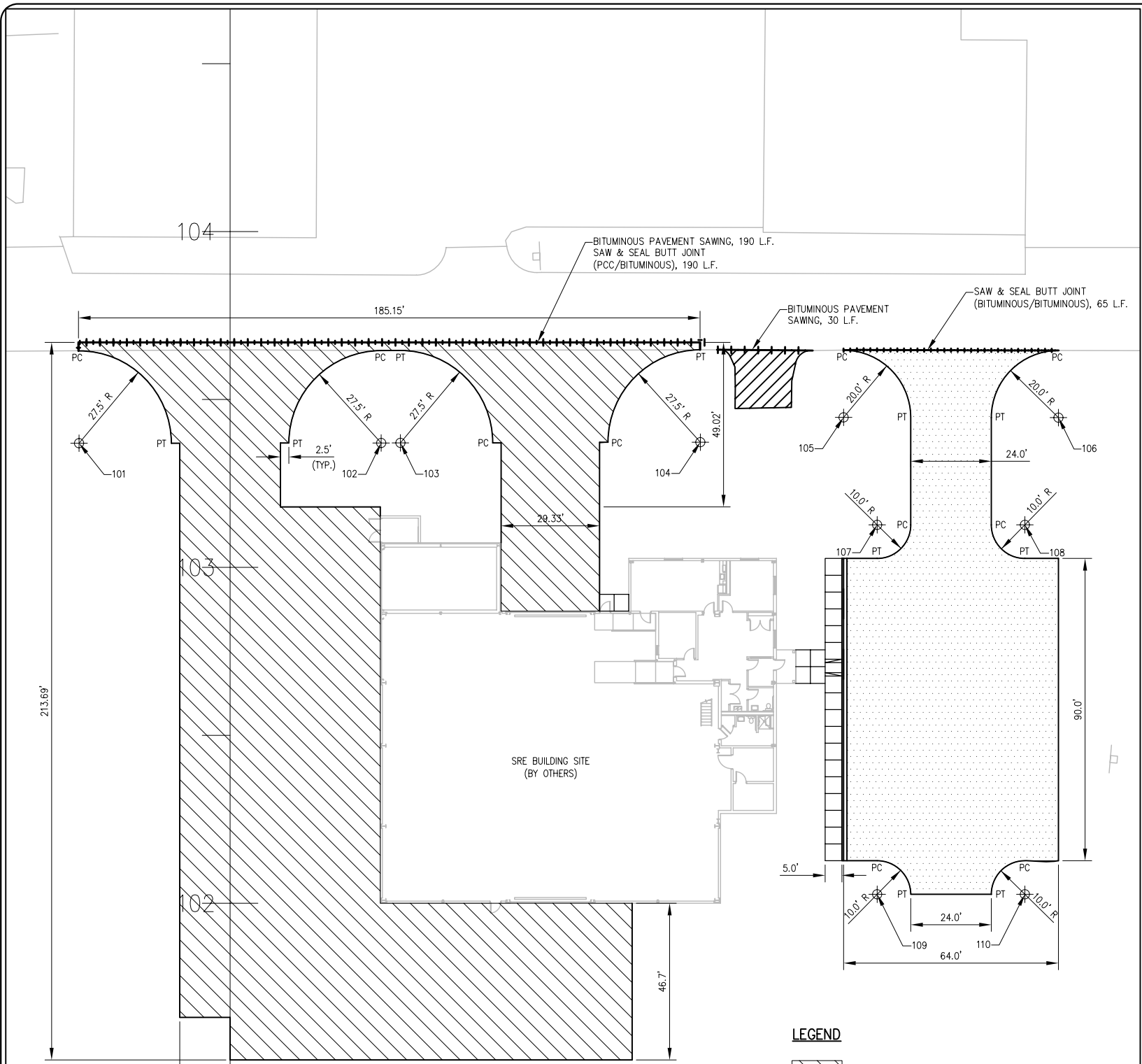
NOTE: FOR SIDEWALK AND CURB DETAILS SEE SHEET 6.

ALIGNMENT DATA

DESCRIPTION	STATION	PROJECT COORDINATES	
		NORTHING	EASTING
BEGINNING OF ALIGNMENT 100	100+00	2,094,252.26	1,110,023.64
END OF ALIGNMENT 100	106+00	2,094,699.17	1,109,623.30

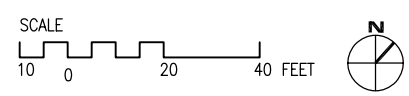
CURVE DATA

CURVE #	CENTER	P.C.	P.T.
101	103+36.99	103+64.49	103+36.99
	45.0' LT (27.5' RADIUS)	45.17' LT EL. = 706.81	17.5' LT EL. = 707.39
102	103+37.06	103+64.56	103+37.06
	45.0' RT (27.5' RADIUS)	45.15' RT EL. = 706.42	17.5' RT EL. = 707.60
103	103+37.09	103+37.09	103+64.59
	50.73' RT (27.5' RADIUS)	78.23' RT EL. = 707.13	50.54' RT EL. = 706.41
104	103+37.29	103+37.29	103+64.79
	140.06' RT (27.5' RADIUS)	112.56' RT EL. = 707.09	139.98' RT EL. = 706.03
105	103+44.68	103+64.68	103+44.68
	182.73' RT (20.0' RADIUS)	182.68' RT EL. = 705.80	202.73' RT EL. = 706.43
106	103+44.59	103+64.59	103+44.59
	246.73' RT (20.0' RADIUS)	246.77' RT EL. = 705.40	226.73' RT EL. = 706.43
107	103+12.67	103+12.67	103+02.67
	192.73' RT (10.0' RADIUS)	202.73' RT EL. = 707.98	192.73' RT EL. = 708.64
108	103+12.67	103+12.67	103+02.67
	236.73' RT (10.0' RADIUS)	226.73' RT EL. = 707.98	236.73' RT EL. = 708.64
109	102+02.67	102+12.67	102+02.67
	192.73' RT (10.0' RADIUS)	192.73' RT EL. = 708.76	202.73' RT EL. = 708.99
110	102+02.67	102+12.67	102+02.67
	236.73' RT (10.0' RADIUS)	236.73' RT EL. = 708.76	226.73' RT EL. = 708.99

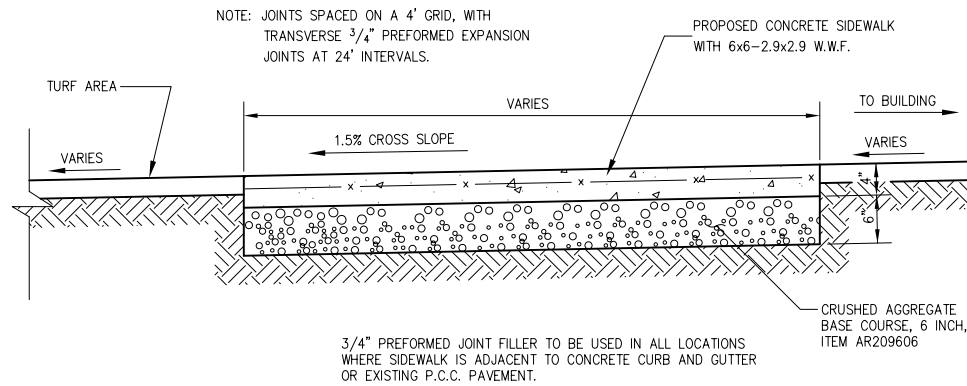
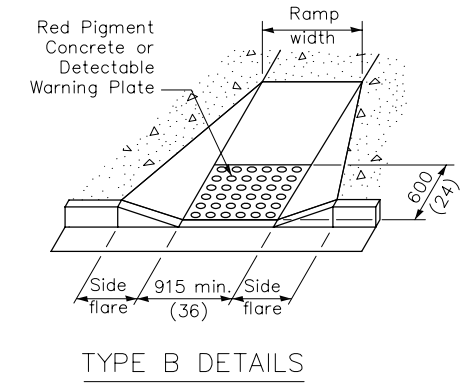
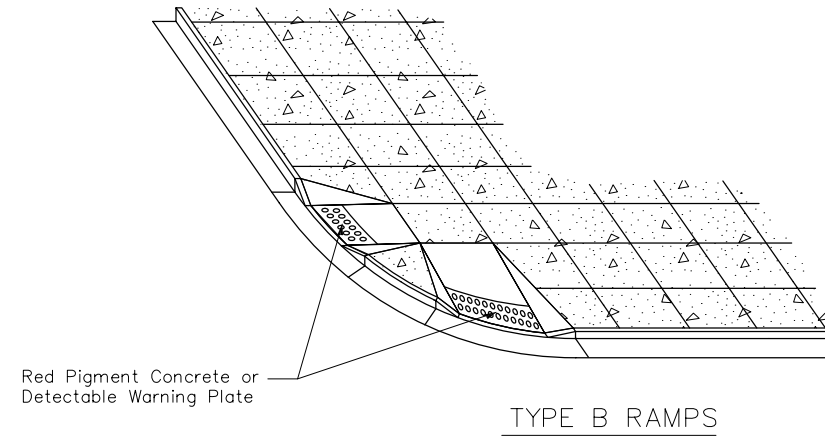
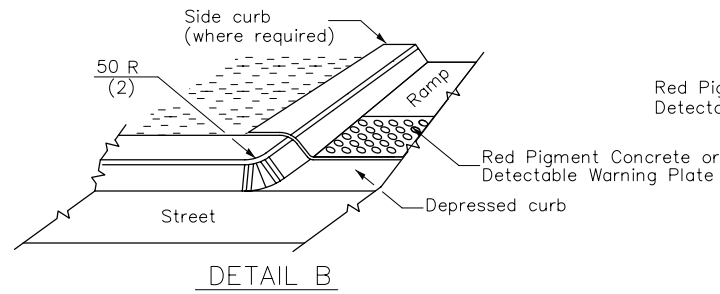
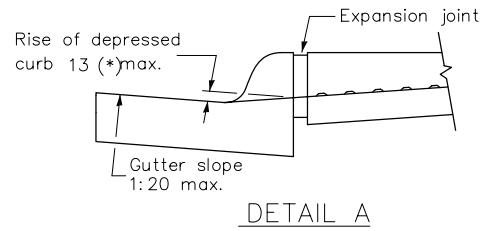
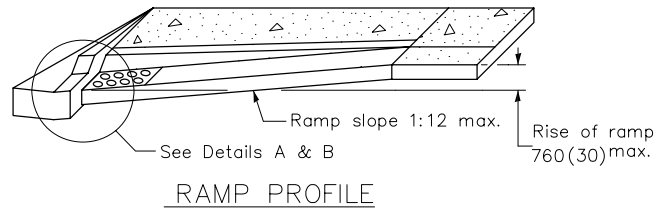


LEGEND

- PCC PAVEMENT, 2022 S.Y.
- BITUMINOUS PAVEMENT, 851 S.Y.
- PAVEMENT REMOVAL, 34.3 S.Y.
- SAWCUT, 220.0 L.F.
- SAW & SEAL BUTT JOINT, 255.0 L.F.



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SIDEWALK CROSS SECTION DETAIL

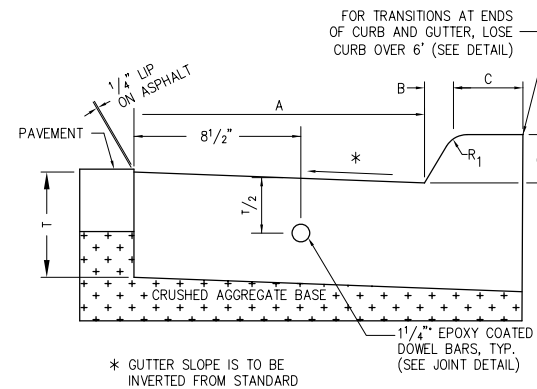
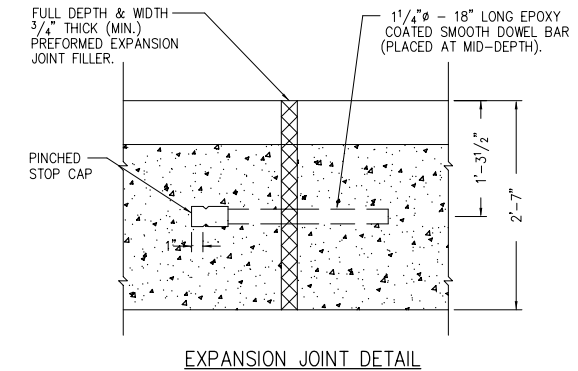


TABLE OF DIMENSIONS BARRIER CURB(IN)

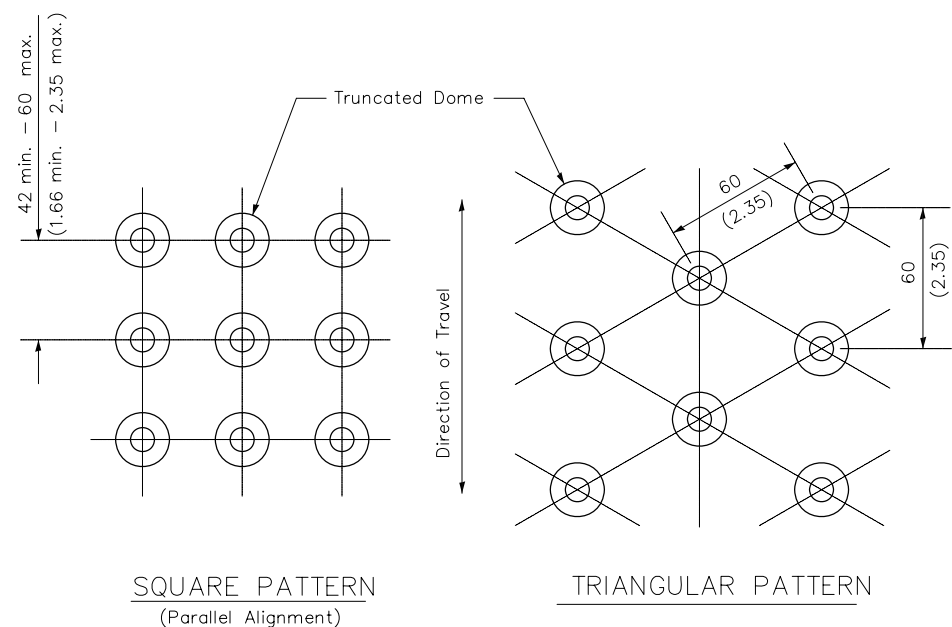
TYPE	A	B	C	D	R ₁	T
B-6.12	12	1	6	6	1	9

SECTION

COMBINATION CONCRETE CURB AND GUTTER
(IDOT STANDARD 606001 - MODIFIED)

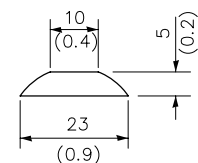


- NOTES**
- CONTRACTION JOINTS TO BE LOCATED AT NO GREATER THAN 12.5' ON CENTER. CONTRACTION JOINTS ARE TO BE EITHER 3/4" THICK PREFORMED JOINT FILLER, SAWED 2" DEEP AT 4 TO 24 HOURS OR FORMED WITH A 1/8" THICK STEEL TEMPLATE 2" DEEP.
 - EXPANSION JOINTS TO BE LOCATED 5' FROM EACH SIDE OF AN INLET STRUCTURE AND AT 50' MAX SPACING.
 - ALL EXPANSION AND SAWED CONTRACTION JOINTS SHALL BE SEALED WITH HOT-POURED SEALANT, ASTM D6690, TYPE II, COST INCIDENTAL TO SIDEWALK.
 - COST OF CRUSHED AGGREGATE BASE UNDER CURB AND GUTTER INCIDENTAL TO ITEM 754.



- NOTES**
- SHALL BE EAST JORDAN IRON WORKS, 7500 SERIES DETECTABLE WARNING PLATE, RED FINISH, OR APPROVED EQUAL.

DETECTABLE WARNINGS DETAIL



TRUNCATED DOME DETAIL

- LEGEND**
- Sidewalk
 - Ramp
 - Detectable Warnings
 - Non walking area

GENERAL NOTES

Detectable warnings shall be installed at curb ramps, medians and pedestrian refuge islands, at-grade railroad crossings, transit platform edges, and other locations where pedestrians are required to cross a hazardous vehicular way. Detectable warnings shall also be installed at alleys and commercial entrances when permanent traffic control devices are present.

The maximum slope of the side flare for Type B ramps shall be 1:10; however, if the width of the landing area between the top of the ramp and an obstruction is less than 1.2 m (4'-0") then the maximum slope shall be 1:12.

REVISION	DATE

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Hanson No.	Filename	Scale	Date	LAYOUT	LDH	1/15/09
83105A8001			2/27/09	DRAWN	LDH	1/15/09
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SIDEWALK DETAILS
SNOW REMOVAL EQUIPMENT BUILDING

REVISION	DATE

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WAUKEGAN, LAKE COUNTY, ILLINOIS

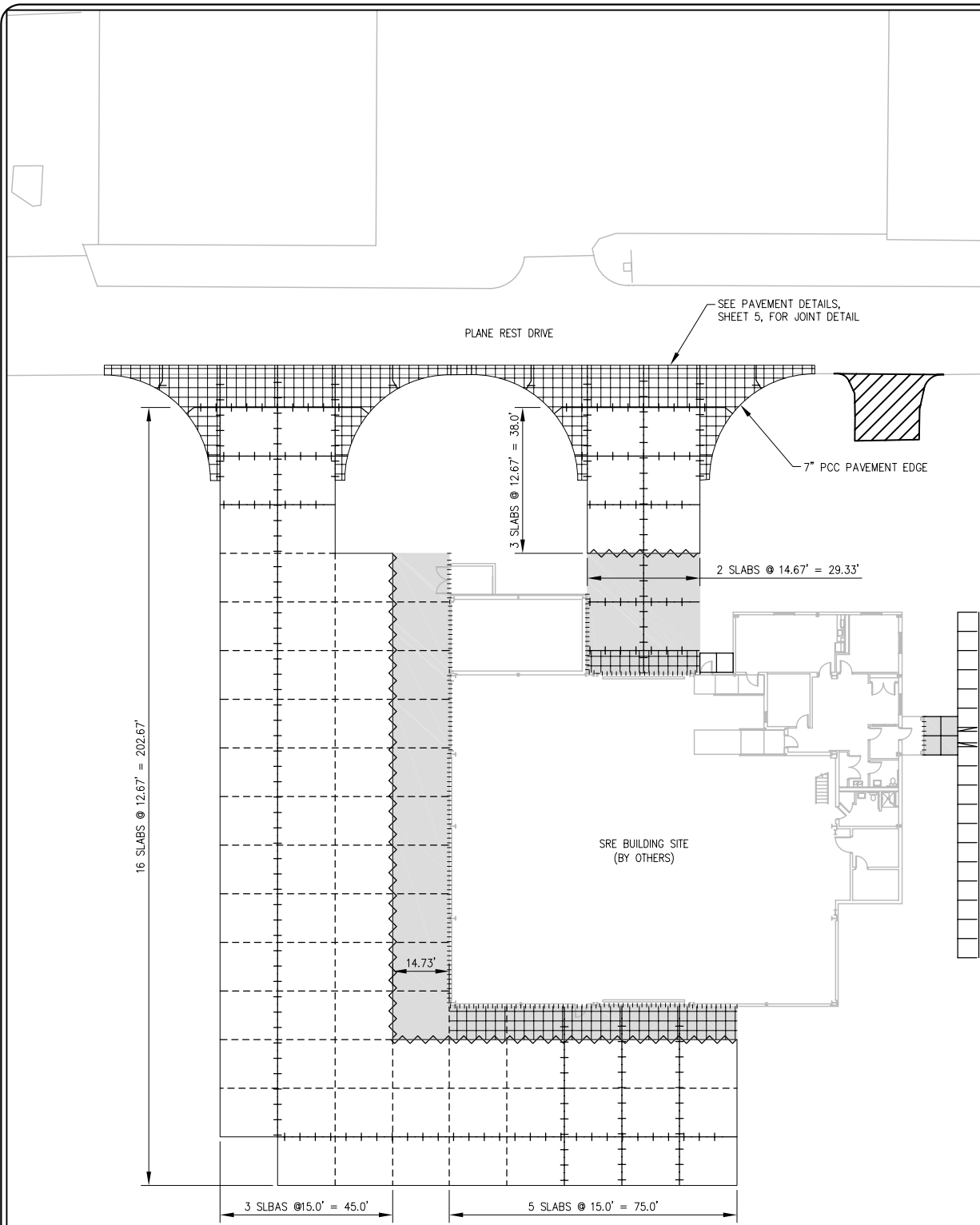
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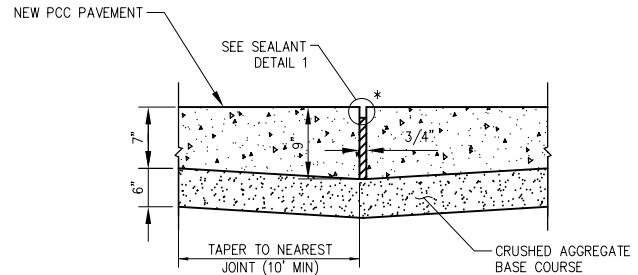
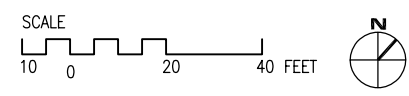
JOINTING PLAN AND DETAILS
SNOW REMOVAL EQUIPMENT BUILDING

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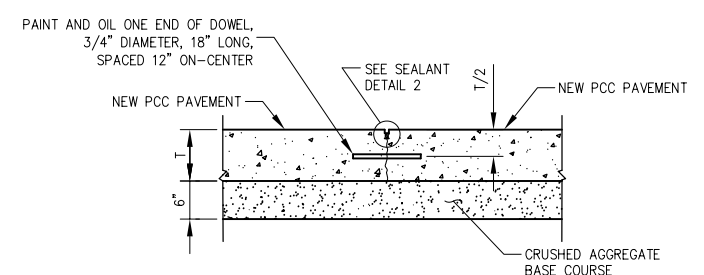


LEGEND

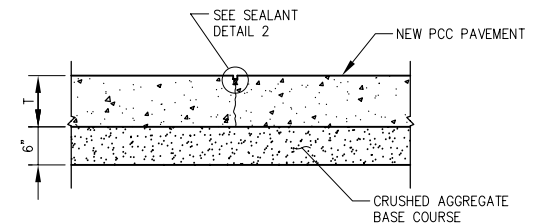
- TYPE C - DOWELED CONTRACTION JOINT
- TYPE A - THICKENED EDGE ISOLATION JOINT
- TYPE D - DUMMY CONTRACTION JOINT
- ~~~~~ TYPE D - DUMMY CONTRACTION JOINT
- [Grid Pattern] REINFORCED SLAB (SEE NOTES)
- [Shaded Area] SLABS TO BE COORDINATED WITH BUILDING CONTRACTOR SEE SPECIAL PROVISIONS, SECTION 60-07.



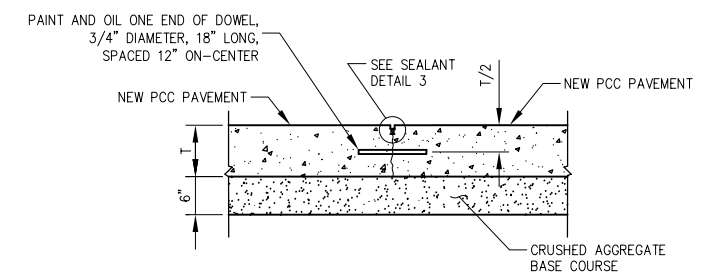
TYPE A - THICKENED EDGE ISOLATION JOINT



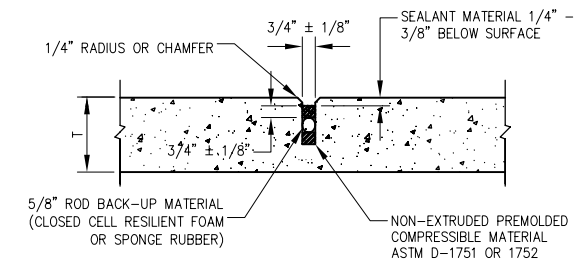
TYPE C - DOWELED CONTRACTION JOINT



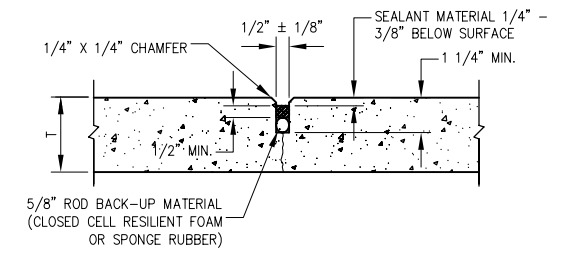
TYPE D - DUMMY CONTRACTION JOINT



TYPE E - DOWELED CONSTRUCTION JOINT

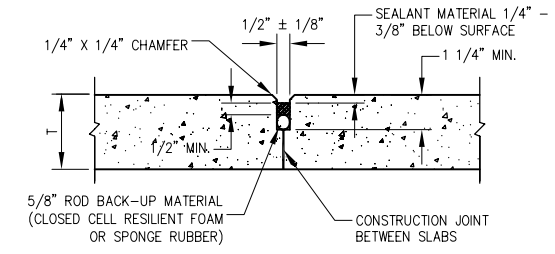


DETAIL 1 - SEALANT

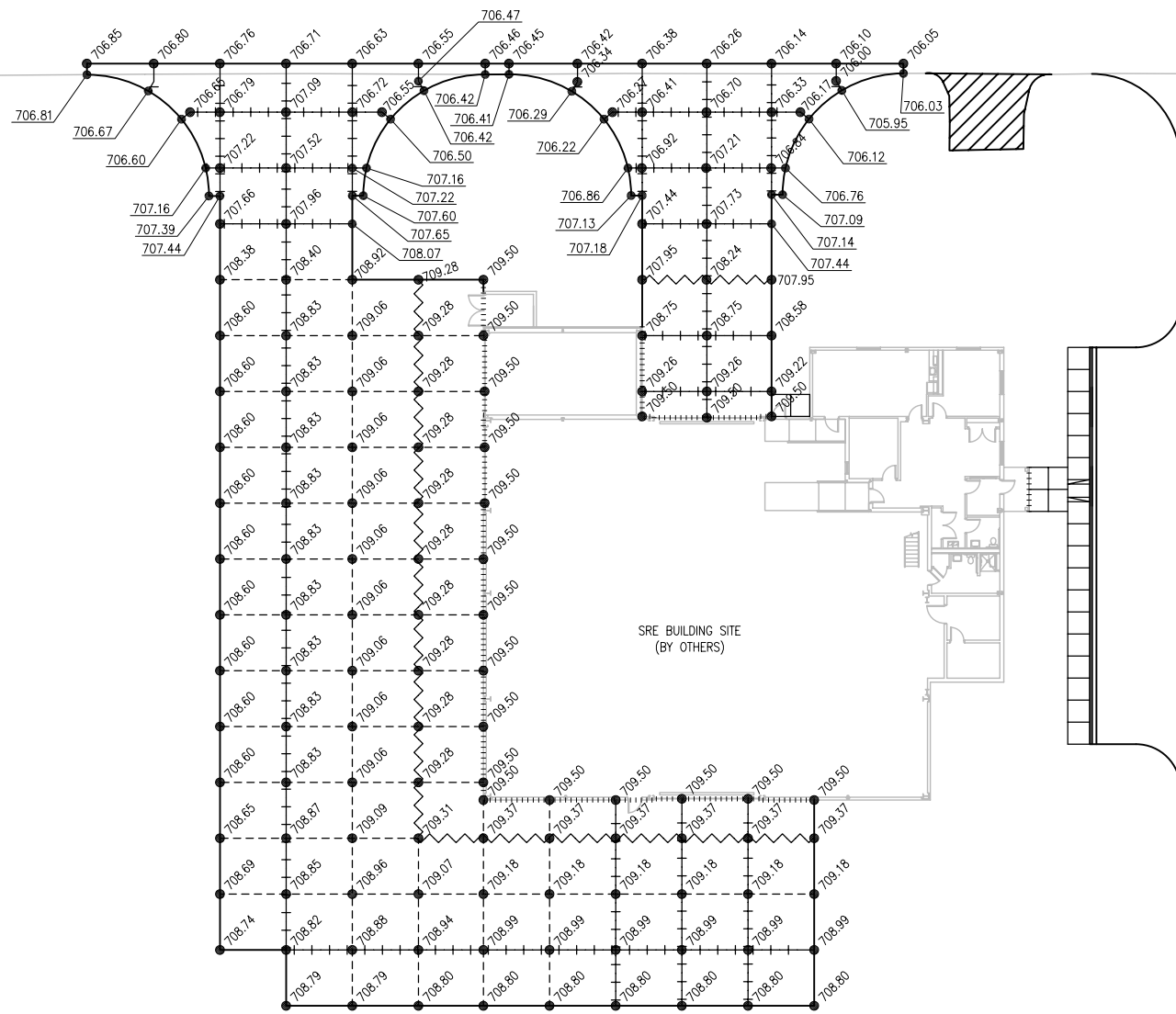


DETAIL 2 - SEALANT

- NOTES:**
- ALL WELDED WIRE FABRIC TO BE 10" X 10" - W5 X W5, WITH 65,000 PSI YIELD STRENGTH. WIRE SIZE AND SPACING MAY BE ALTERED AS LONG AS A MINIMUM W5 WIRE SIZE IS USED AND THE SECTIONAL AREA IS A MINIMUM OF 0.06 SQUARE INCHES PER FOOT AND 12" MAX WIRE SPACING.
 - EDGE SPACING FOR THE WELDED WIRE FABRIC TO BE THREE (3) INCHES. A MINIMUM OF THREE (3) WIRES ARE TO BE PROVIDED IN ANY ONE DIRECTION IN EACH SLAB.
 - WELDED WIRE FABRIC, JOINT REINFORCING, JOINT EXPANSION MATERIAL AND JOINT SAWING AND SEALING ARE INCIDENTAL TO P.C.C. PAVEMENT.
 - TURN LAST 2' OF JOINT PERPENDICULAR TO RADIUS. NO JOINT REINFORCEMENT IN PERPENDICULAR SEGMENT.



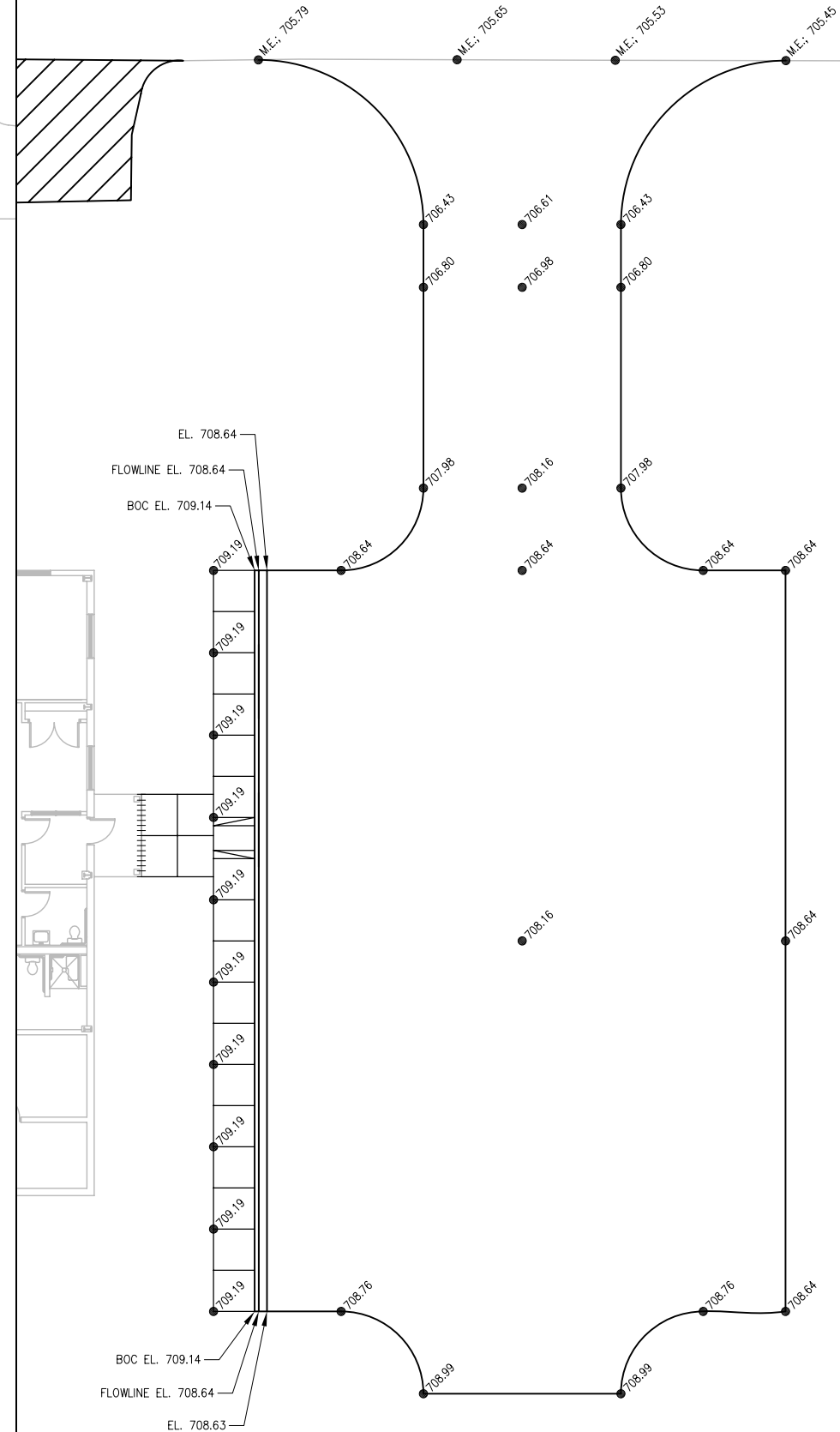
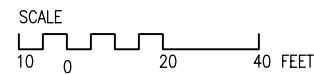
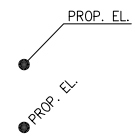
DETAIL 3 - SEALANT



NOTES:

1. FOR ADDITIONAL GRADING INFORMATION, SEE CROSS SECTIONS.
2. CONTRACTOR IS REQUIRED TO FIELD VERIFY EXISTING UTILITY LOCATIONS.
3. CONTRACTOR WILL BE PROVIDED WITH CONTROL POINTS AND BASELINES IN ACCORDANCE WITH SPECIAL PROVISIONS.
4. FOR SEEDING INFORMATION, SEE LANDSCAPING PLAN.
5. GARAGE FLOOR ELEVATION = 709.5
FINISHED FLOOR ELEVATION = 710.0

LEGEND



REVISION	DATE

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WAUKEGAN, LAKE COUNTY, ILLINOIS

Hanson No. 83105A8001

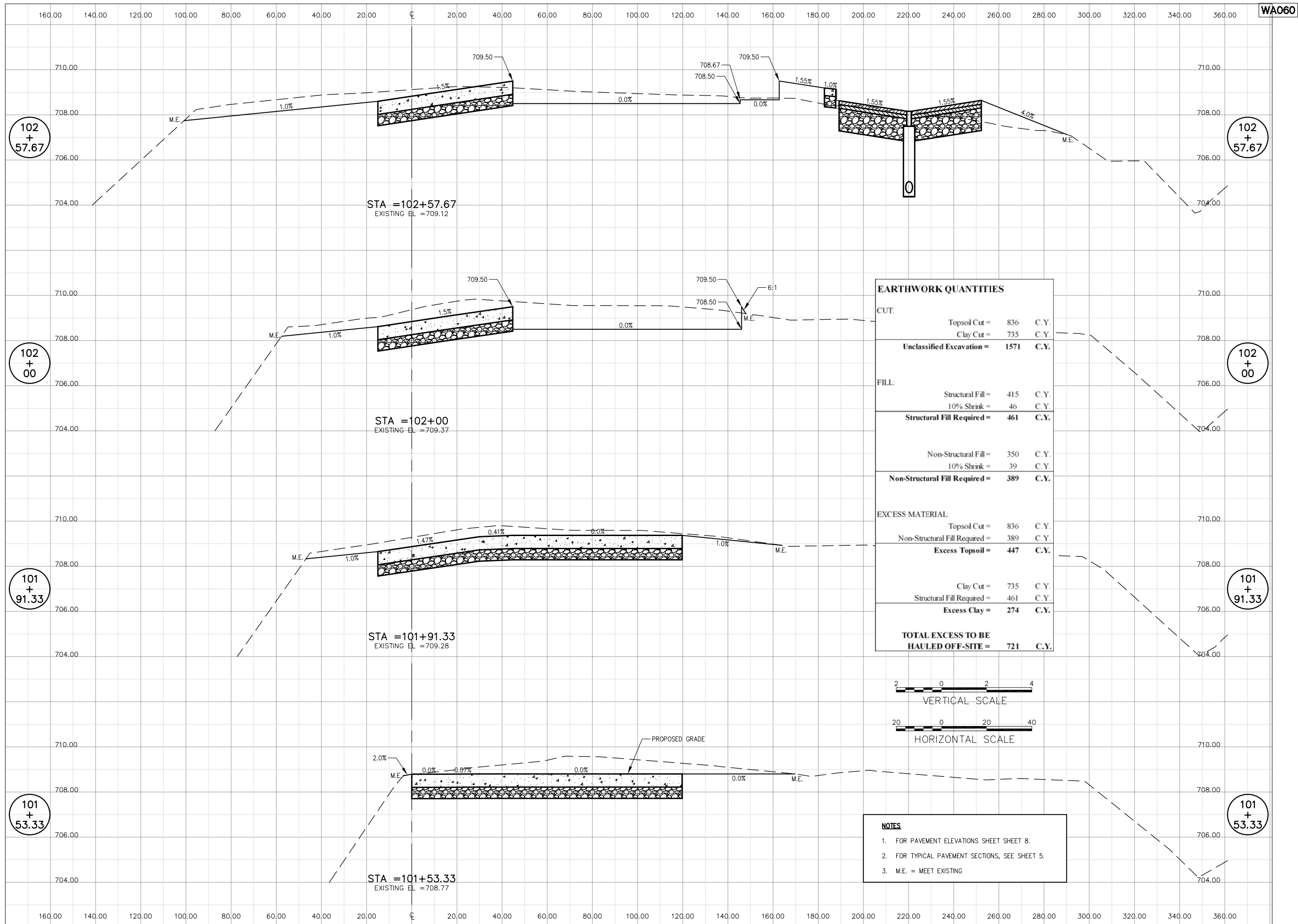
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	2/27/09	

LAYOUT	LDH	LDH	LDH
	1/15/09	1/15/09	2/23/09
DRAWN	LDH	LDH	LDH
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SLAB ELEVATIONS AND STAKING
SNOW REMOVAL EQUIPMENT BUILDING

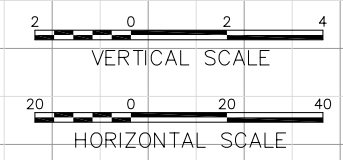
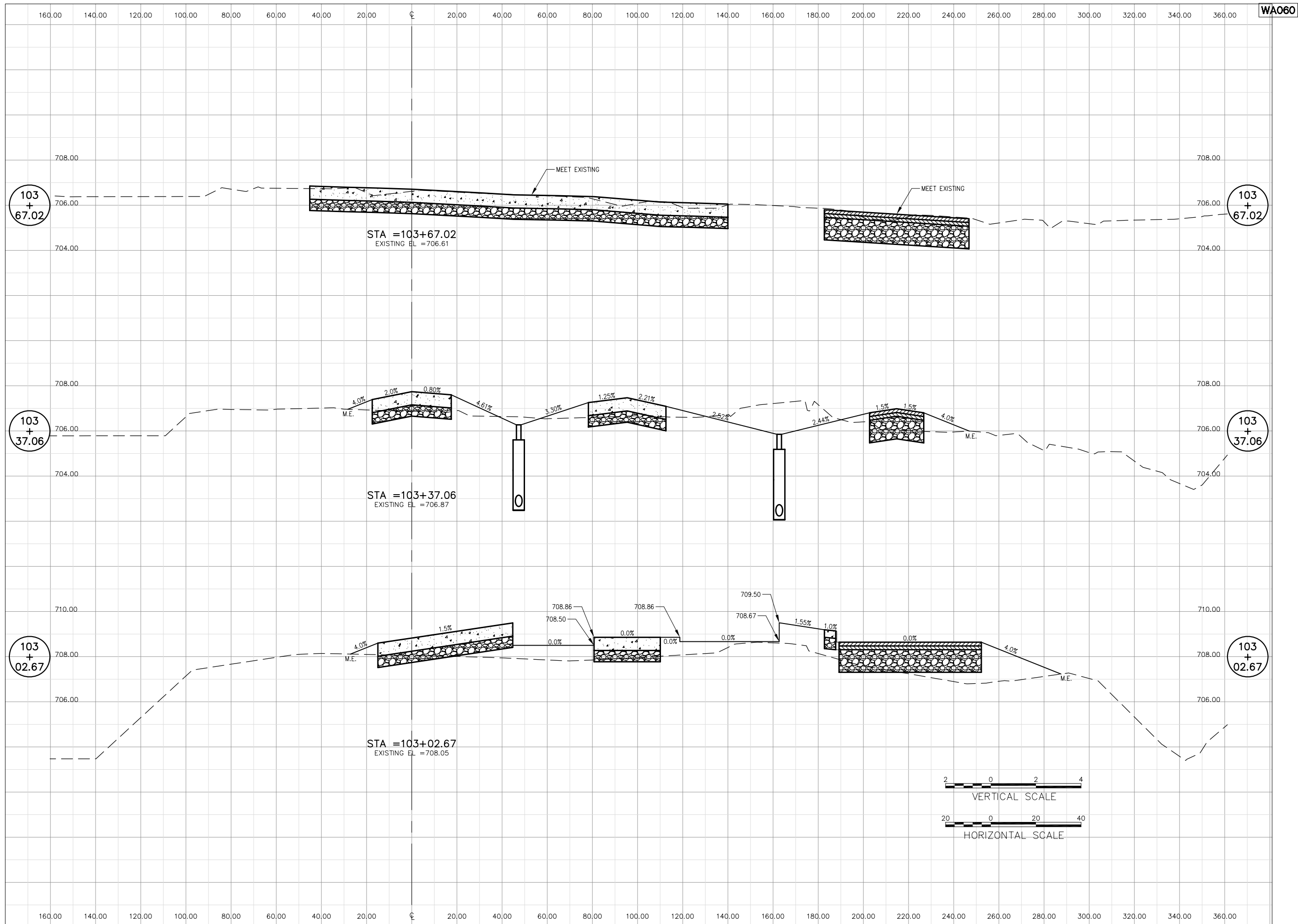


NOTES

- FOR PAVEMENT ELEVATIONS SHEET SHEET 8.
- FOR TYPICAL PAVEMENT SECTIONS, SEE SHEET 5.
- M.E. = MEET EXISTING

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WAUKEGAN REGIONAL AIRPORT WAUKEGAN, LAKE COUNTY, ILLINOIS	
Hanson No. 83105A8001	Date 2/27/09
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CROSS SECTIONS SNOW REMOVAL EQUIPMENT BUILDING	
9 of 22 sheets	

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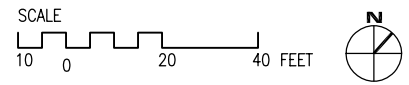
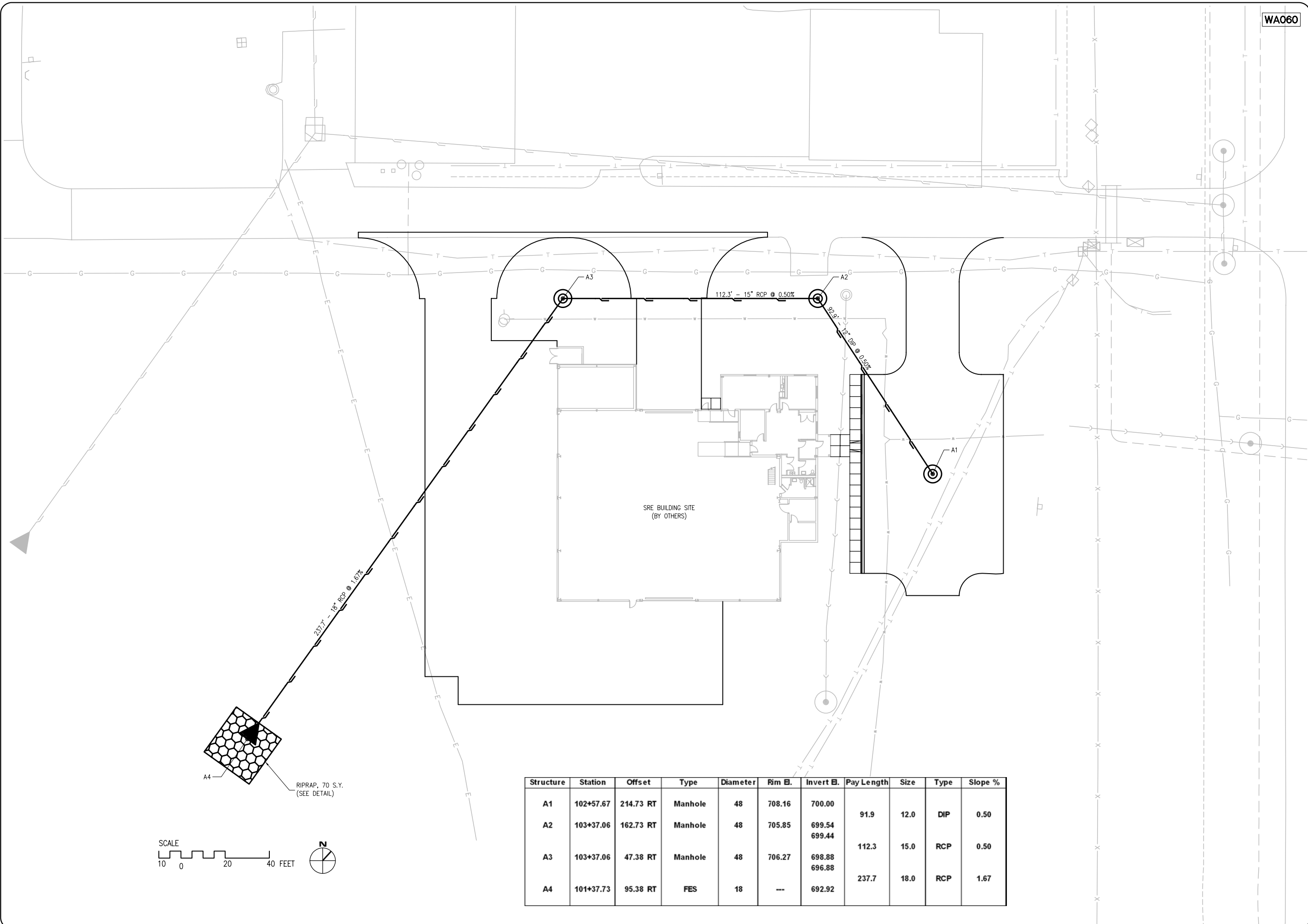
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CROSS SECTIONS
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Structure	Station	Offset	Type	Diameter	Rim El.	Invert El.	Pay Length	Size	Type	Slope %
A1	102+57.67	214.73 RT	Manhole	48	708.16	700.00				
A2	103+37.06	162.73 RT	Manhole	48	705.85	699.54 699.44	91.9	12.0	DIP	0.50
A3	103+37.06	47.38 RT	Manhole	48	706.27	698.88 696.88	112.3	15.0	RCP	0.50
A4	101+37.73	95.38 RT	FES	18	---	692.92	237.7	18.0	RCP	1.67

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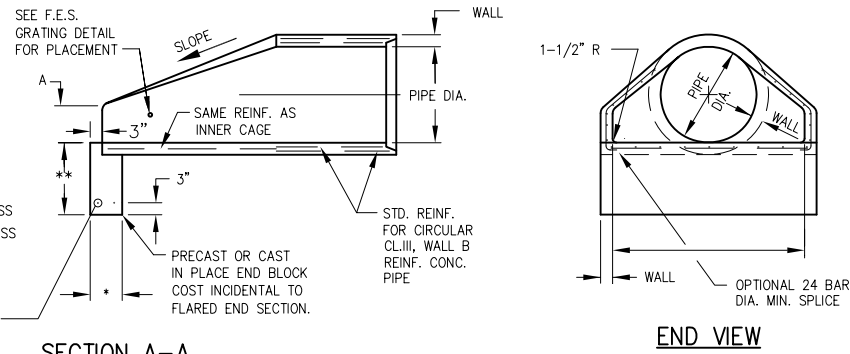
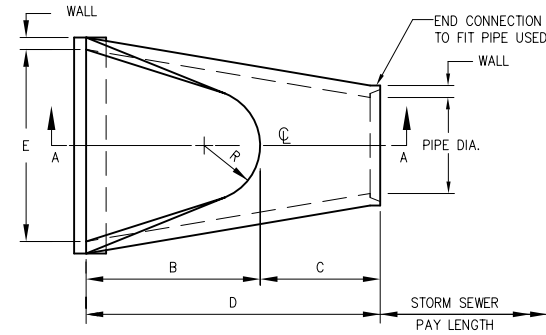
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DRAINAGE PLAN
 SNOW REMOVAL EQUIPMENT BUILDING

NOTES

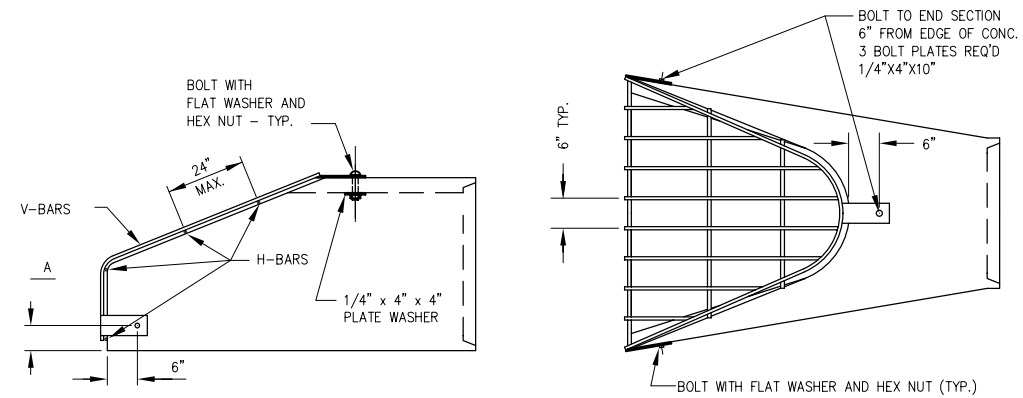
1. GRATING SHALL BE PAID FOR UNDER ITEM AR752518.
2. THE END BLOCK SHALL BE PLACED PRIOR TO THE INSTALLATION OF THE FLARED END SECTION. THE END BLOCK SHALL BE BACKFILLED IN ACCORDANCE WITH ARTICLE 502.10 OF IDOT SPECIFICATIONS, WITH COST INCIDENTAL TO FLARED END SECTION.
3. PRECAST CONCRETE FLARED END SECTIONS SHALL CONFORM TO THE APPLICABLE REQUIREMENTS OF AASHTO M-170 CLASS III, WALL B REINFORCED CONCRETE PIPE.
4. MODIFICATION IS DUE TO THE RELOCATION OF THE CONNECTION POINT BETWEEN THE GRATE AND THE FLARED END SECTION.



* 8" - 36" DIA. PIPE OR LESS
 ** 18" - 36" DIA. PIPE OR LESS

PIPE DIA.	WALL	A	B	C	D	E	R	SLOPE
12"	2"	4"	2'-0"	4'-0 7/8"	6'-0 7/8"	2'-0"	9"	3:1
15"	2 1/4"	6"	2'-3"	3'-10"	6'-1"	2'-6"	11"	3:1
18"	2 1/2"	9"	2'-3"	3'-10"	6'-1"	3'-0"	12"	3:1
24"	3"	9 1/2"	3'-7 1/2"	2'-6"	6'-1 1/2"	4'-0"	14"	3:1

PRECAST CONCRETE FLARED END SECTION
 (IDOT STANDARD 542301-MODIFIED)

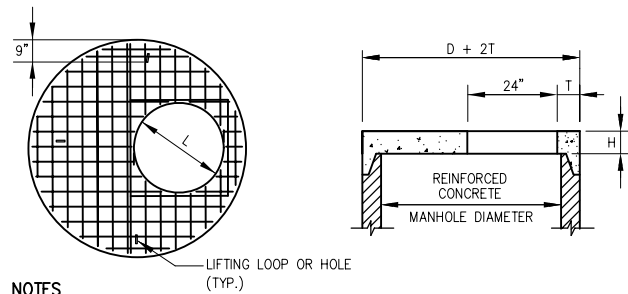


	DIA. INCHES	V-BAR SIZE	H-BAR SIZE	No. OF H-BARS REQ'D.	BOLT DIA.	"A" DIM.
	INCHES					
END SECTIONS	18	1/2φ	5/8φ	4	1/2	4 1/2

NOTES

1. BARS AND PLATES ARE HOT ROLLED STEEL.
2. BARS, PLATES, PIPE AND BOLTS ARE GALVANIZED.

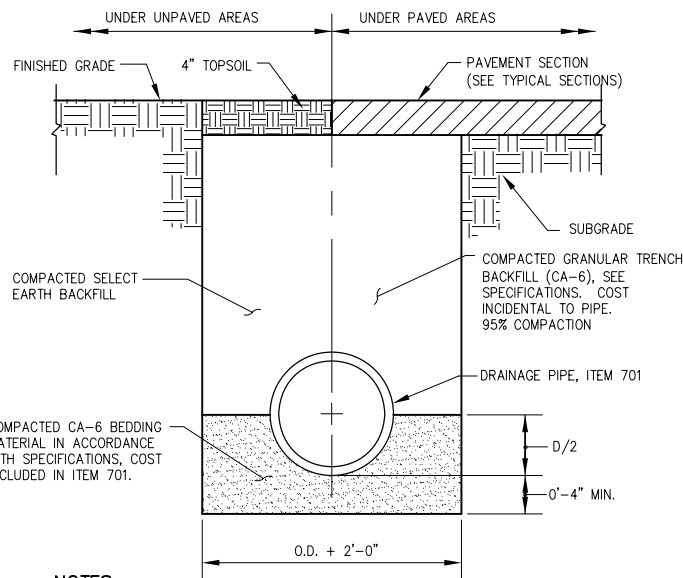
GRATING FOR FLARED END SECTION



NOTES

1. ADDITIONAL TOP AND BOTTOM BARS PLACED ADJACENT TO ACCESS HOLE.
2. MINIMUM 1" COVER ON STEEL BARS.
3. THREE LIFTING LOOPS OR HOLES.
4. MINIMUM STEEL REINFORCEMENT IN EACH DIRECTION TO BE WWF 1.06 SQ. IN./FT. IN ACCORDANCE WITH AASHTO M199 AND IDOT STANDARDS.
5. FOR "L" DIMENSION SEE STORM SEWER SCHEDULES.

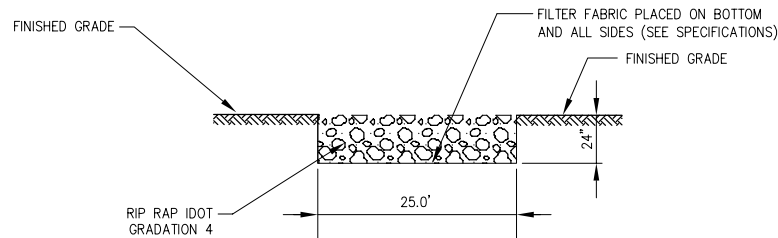
PRECAST REINFORCED CONCRETE FLAT SLAB TOP
 (IDOT STANDARD 602601)



NOTES

1. UNSUITABLE MATERIAL ENCOUNTERED DURING PLACEMENT OF BEDDING SHALL BE REMOVED AND REPLACED.
2. WITHIN 3 FEET OF PAVED AREA, GRANULAR BACKFILL IS TO BE USED INSTEAD OF EARTH BACKFILL.

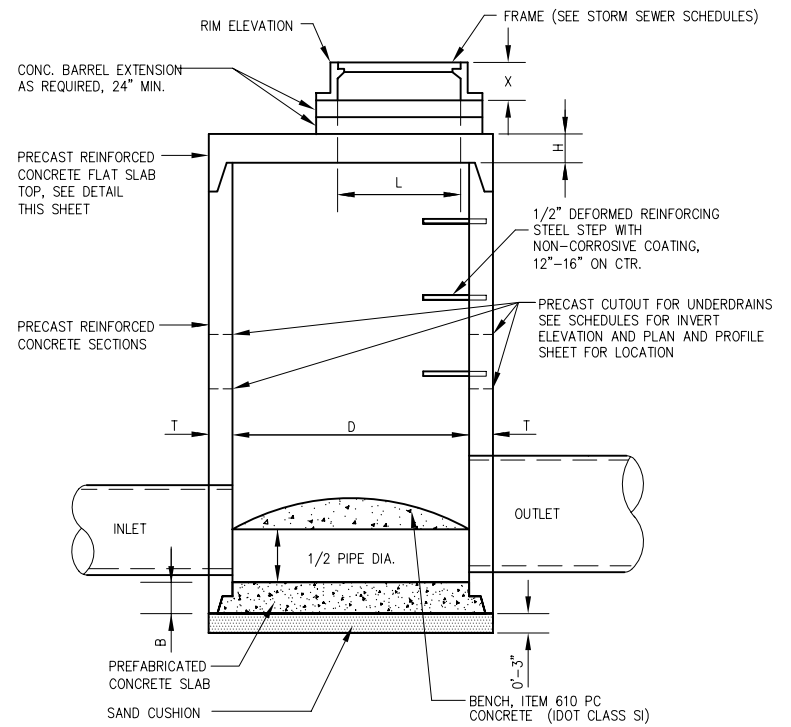
PIPE TRENCH



RIPRAP

NOTE

1. COST OF FILTER FABRIC IS INCIDENTAL TO RIPRAP.
2. WIDTH (W) OF RIPRAP IS 25'



MANHOLE DATA

INSIDE DIA. "D" (IN.)	WALL THICKNESS "T" (IN.)	TOP THICKNESS "H" (IN.)	BOTTOM THICKNESS "B" (IN.)
48	5	6	6
60	5	8	8
72	6	8	8
84	7	8	8

NOTES

1. FOR FRAME AND LID INFORMATION SEE STORM SEWER SCHEDULES.
2. CENTER OF FRAME TO BE USED FOR LOCATING STRUCTURE. FOR STRUCTURE LOCATIONS AND ADDITIONAL INFORMATION SEE SCHEDULE.
3. ALL STRUCTURES TO BE PRECAST REINFORCED CONCRETE SECTIONS; BENCHES MAY BE CAST IN PLACE.
4. BLOCKOUTS FOR UNDERDRAIN CONNECTIONS SHALL BE PRECAST INTO THE STRUCTURE.

MANHOLE WITH FLAT SLAB TOP
 (IDOT STANDARD 602406-MODIFIED)

DETAILS SHOWN ARE NOT TO SCALE

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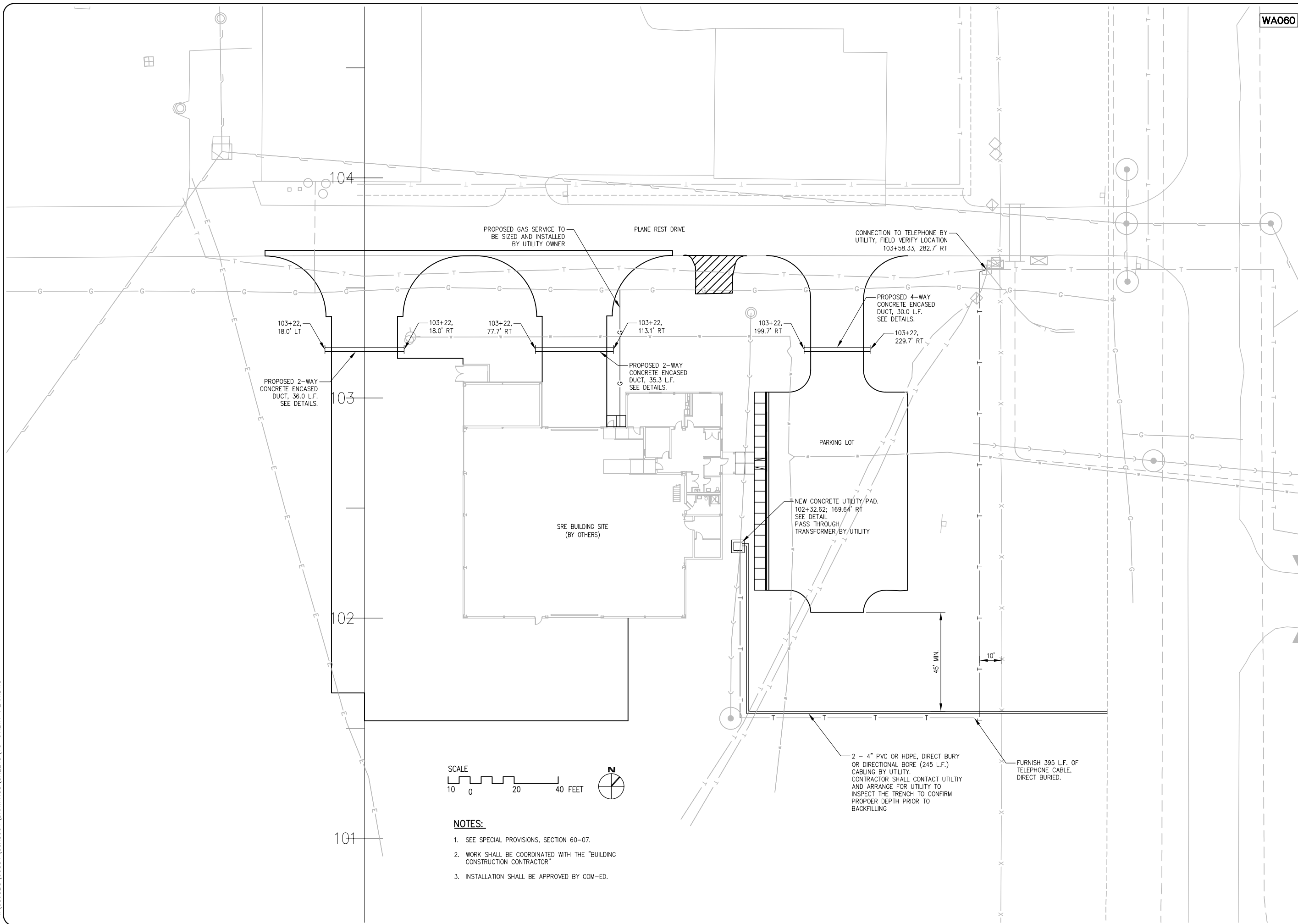
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DRAINAGE DETAILS
 SNOW REMOVAL EQUIPMENT BUILDING

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DRAWN	LDH 1/15/09
REVIEWED	RMH 2/23/09

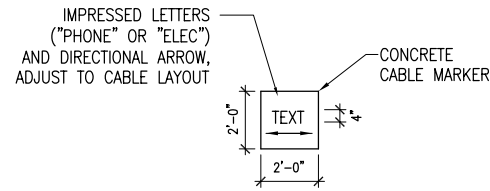
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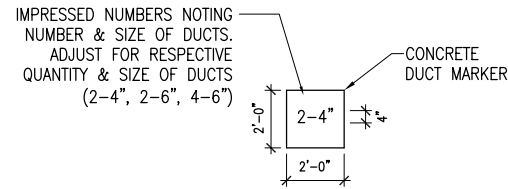
UTILITY PLAN
 SNOW REMOVAL EQUIPMENT BUILDING

NOTES:

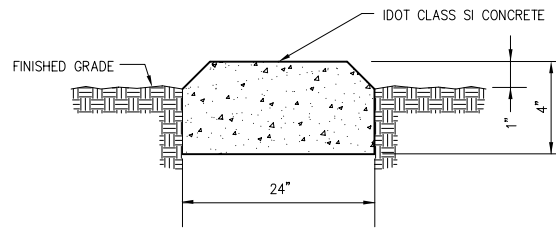
1. THE COST OF ALL TURF AND PAVEMENT DUCT MARKERS SHALL BE INCIDENTAL TO THE DUCT. THE COST OF ALL CABLE MARKERS SHALL BE INCIDENTAL TO THE CABLE.
2. BITUMINOUS PAVEMENT DUCT MARKER AND CONCRETE DUCT MARKER TO BE PROVIDED AT EACH END OF EACH DUCT AS SHOWN ON THE LOCATION PLAN. FOR CONCRETE PAVEMENT, THE LETTER "D" SHALL BE IMPRESSED IN THE PAVEMENT INSTEAD OF THE MARKER. THE LETTER SHALL BE IMPRESSED AS DESCRIBED IN NOTE 4.
3. CABLE MARKERS SHALL BE PLACED AT CHANGES OF DIRECTION AND APPROXIMATELY EVERY 200' ALONG CABLE RUNS.
4. CONCRETE CABLE MARKERS AND DUCT MARKERS SHALL HAVE LETTERS 4" HIGH, 3" WIDE WITH WIDTH OF STROKE 1/2" AND 1/4" DEEP. ALL LETTERS, NUMBERS AND ARROWS TO BE IMPRESSED.



TURF CABLE MARKERS
"NOT TO SCALE"



TURF DUCT MARKERS
"NOT TO SCALE"

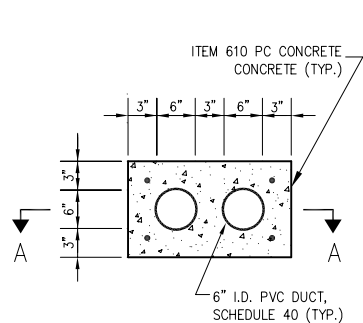


CONCRETE MARKER

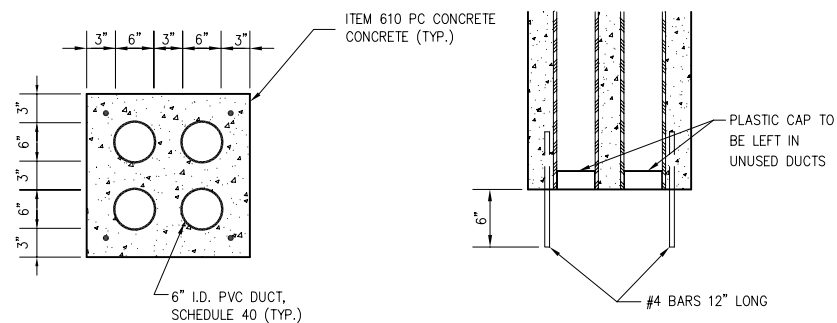
NOTES:

1. DUCT MARKERS SHALL BE PLACED EVERY 200 FEET AND AT CHANGES OF DIRECTION AND CABLE ENDS.
2. LETTERS 4" HIGH, 3" WIDE WITH WIDTH OF STROKE 1/2" AND 1/4" DEEP. ALL LETTERS, NUMBERS AND ARROWS TO BE IMPRESSED.

TURF CABLE AND DUCT MARKERS



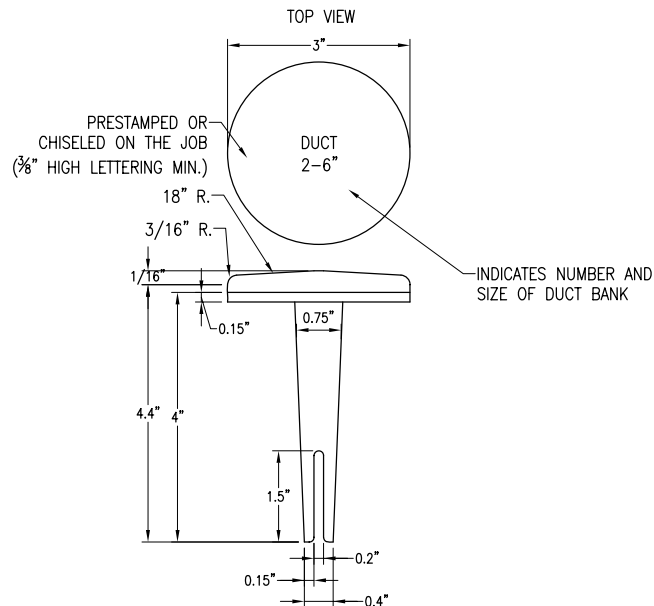
2-WAY



4-WAY

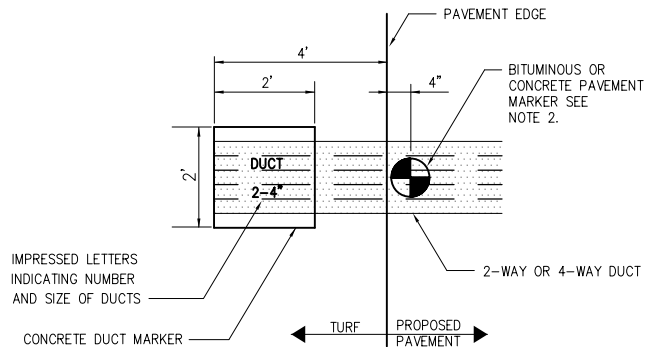
SECTION A-A

2-WAY AND 4-WAY CONCRETE ENCASED DUCT

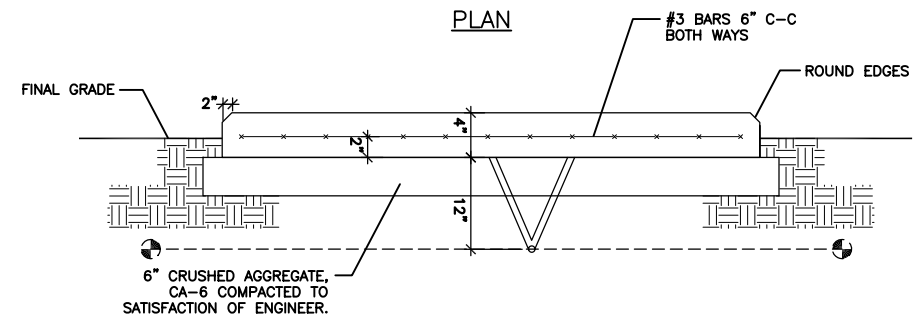
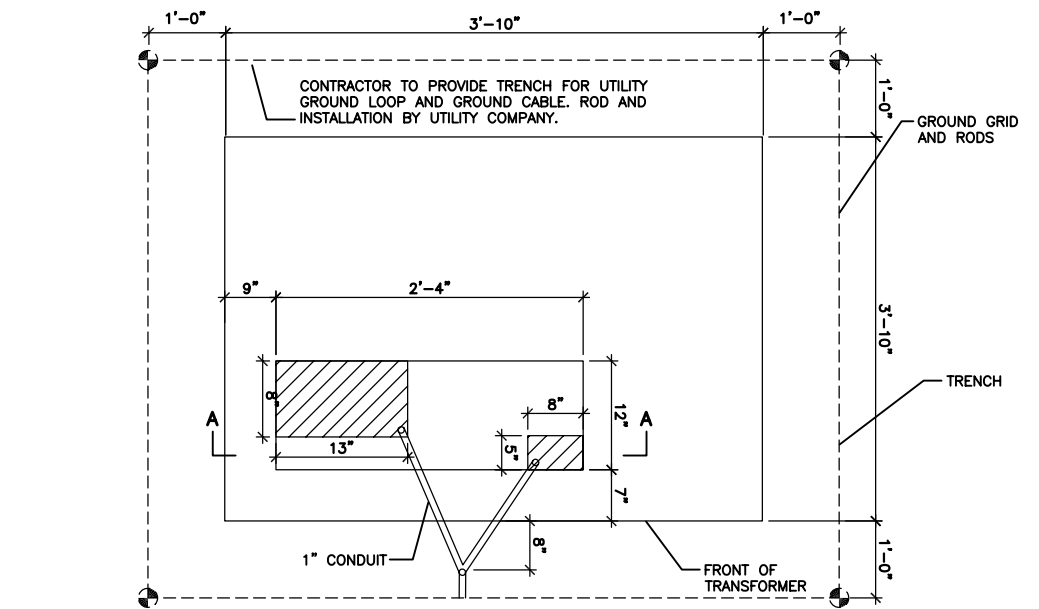


BITUMINOUS PAVEMENT DUCT MARKERS
"NOT TO SCALE"

NOTE:
TOP OF MARKER SHALL BE FLUSH WITH FINISHED PAVEMENT SURFACE. MARKER MAY BE INSTALLED IN A DRILLED HOLE AND SECURED WITH EPOXY GLUE.



LOCATION PLAN

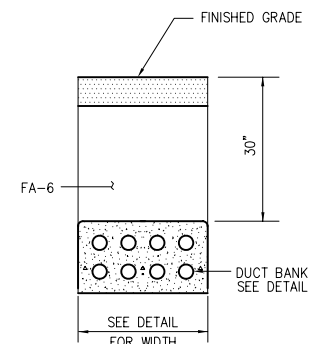


SECTION A-A

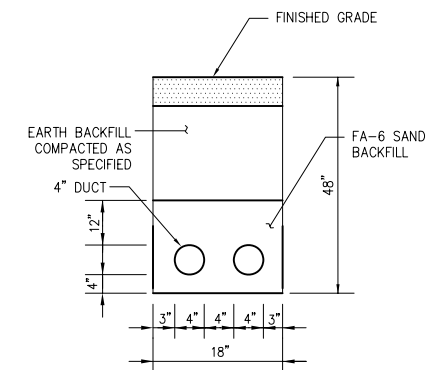
NOTES:

1. ALL WORK SHALL BE PAID UNDER ITEM AR110600. CRUSHED AGGREGATE SHALL BE INCIDENTAL TO CONCRETE PAD.
2. CONCRETE PAD MAY BE CAST IN PLACE OR PRECAST.
3. SEE SPECIAL PROVISIONS.

CONCRETE UTILITY PAD
AR110600



CONCRETE ENCASED DUCT



TWIN PVC (OR HDPE) DUCT, DIRECT BURY

DETAILS SHOWN ARE NOT TO SCALE

REVISION

DATE

WAUKEGAN REGIONAL AIRPORT
WAUKEGAN, LAKE COUNTY, ILLINOIS

Hanson No.	83105A8001
Filename	2/27/09
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Date	1/15/09
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DRAWN	LDH
REVIEWED	RMH
	2/23/09

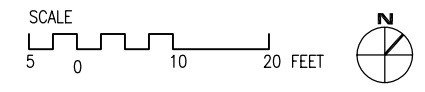
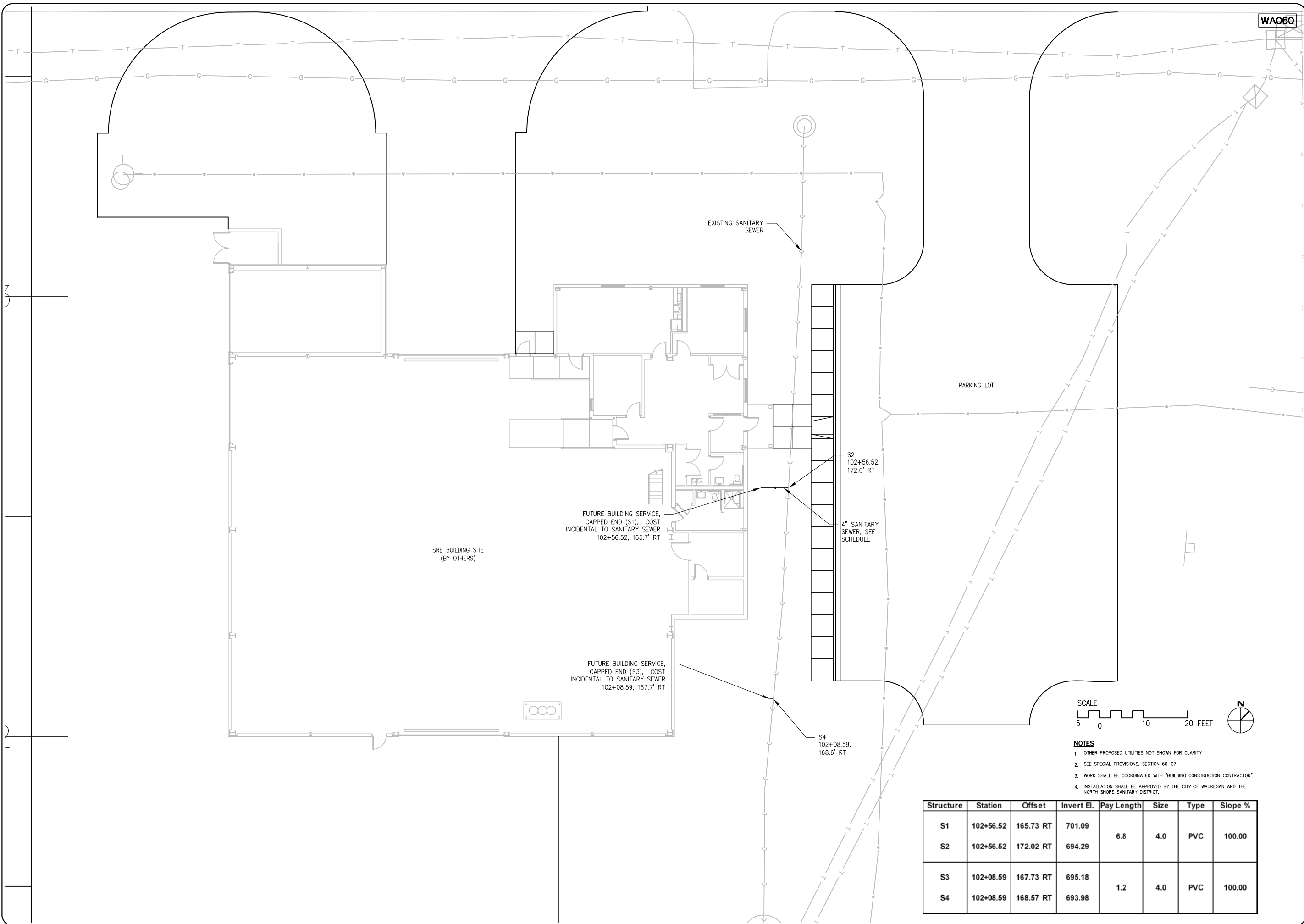
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ELECTRICAL DETAILS
SNOW REMOVAL EQUIPMENT BUILDING

JAN 26, 2010 12:03 PM HAUSM00682
I:\05\JOBS\00831\05A8001\DRAWINGS\SHEETS\14-ELECTRICAL\DETAILS.DWG

JAN 26, 2010 12:04 PM HALJSM00682
 I:\05\JOBS\00831\05A8001\DRAWINGS\SHEETS\15-SANITARY SEWER PLAN.DWG



- NOTES**
1. OTHER PROPOSED UTILITIES NOT SHOWN FOR CLARITY
 2. SEE SPECIAL PROVISIONS, SECTION 60-07.
 3. WORK SHALL BE COORDINATED WITH "BUILDING CONSTRUCTION CONTRACTOR"
 4. INSTALLATION SHALL BE APPROVED BY THE CITY OF WAUKEGAN AND THE NORTH SHORE SANITARY DISTRICT.

Structure	Station	Offset	Invert El.	Pay Length	Size	Type	Slope %
S1	102+56.52	165.73 RT	701.09	6.8	4.0	PVC	100.00
S2	102+56.52	172.02 RT	694.29				
S3	102+08.59	167.73 RT	695.18	1.2	4.0	PVC	100.00
S4	102+08.59	168.57 RT	693.98				

REVISION	DATE

WAUKEGAN REGIONAL AIRPORT
 WAUKEGAN, LAKE COUNTY, ILLINOIS

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SANITARY SEWER PLAN
 SNOW REMOVAL EQUIPMENT BUILDING

REVISION	
DATE	

WAUKEGAN REGIONAL AIRPORT
WAUKEGAN, LAKE COUNTY, ILLINOIS

Hanson No.	83105A8001
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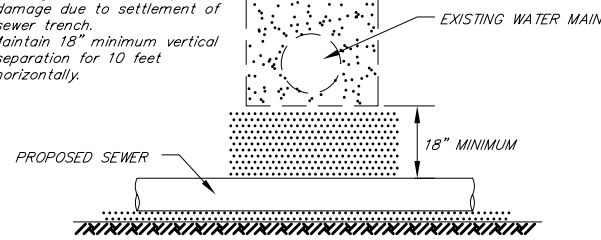
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SANITARY SEWER DETAILS
SNOW REMOVAL EQUIPMENT BUILDING

PROPOSED SEWER LINE BELOW EXISTING WATER MAIN WITH 18" MINIMUM SEPARATION.

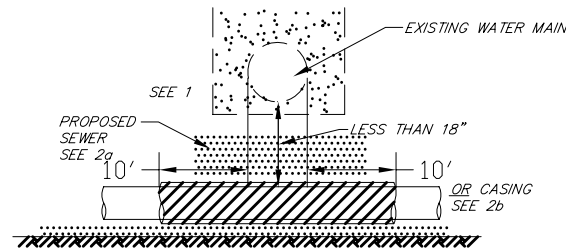
GUIDELINES

1. Provide adequate support for Existing Water Main to prevent damage due to settlement of sewer trench.
2. Maintain 18" minimum vertical separation for 10 feet horizontally.



PROPOSED SEWER LINE BELOW EXISTING WATER MAIN WITH LESS THAN 18" MINIMUM SEPARATION.

NOTE: TYPE C MATERIAL TO BE COMPACTED TO 90% OF MODIFIED PROCTOR MAXIMUM DENSITY.



GUIDELINES

1. Omit Select Granular Cradle and Granular Backfill to one (1) foot over top of pipe and use Select Excavated Material (Type C) and compact for 10 feet on either side of Water Main.
2. a. Construct 10 feet of Proposed Sewer of Water Main material and pressure test, or; b. Use 10 feet of casing for Proposed Sewer and Seal ends of casing.
3. Point loads shall not be allowed between sewer or sewer casing and water main.
4. Provide adequate support for Existing Water Main to prevent damage due to settlement of sewer trench.

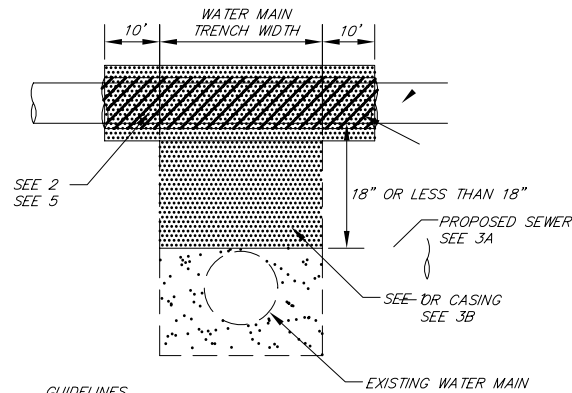
WATER AND SEWER SEPARATION REQUIREMENTS

(VERTICAL SEPARATION)

EXISTING WATERMAIN BELOW PROPOSED SEWER LINE WITH 18" MINIMUM SEPARATION.

EXISTING WATERMAIN BELOW PROPOSED SEWER LINE WITH LESS THAN 18" SEPARATION.

NOTE: TYPE C MATERIAL TO BE COMPACTED TO 90% OF MODIFIED PROCTOR MAXIMUM DENSITY.



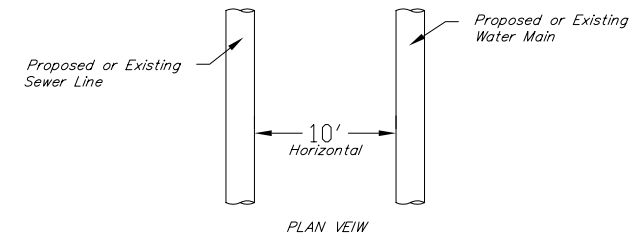
GUIDELINES

1. If Select Granular Backfill exists; remove within width of Proposed Sewer trench and replace with Select Excavated Material (Type C) and compact.
2. Omit Select Granular Cradle and Granular Backfill to one (1) foot over top of pipe and use Select Excavated Material (Type C) and compact for 10 feet on either side of water main.
3. a. Construct 10 feet of Proposed Sewer of Water Main material and pressure test, or; b. Use 10 feet of casing for Proposed Sewer and Seal ends of casing.
4. Point loads shall not be allowed between sewer or sewer casing and water main.
5. Provide adequate support for Existing Water Main to prevent damage due to settlement of sewer trench.

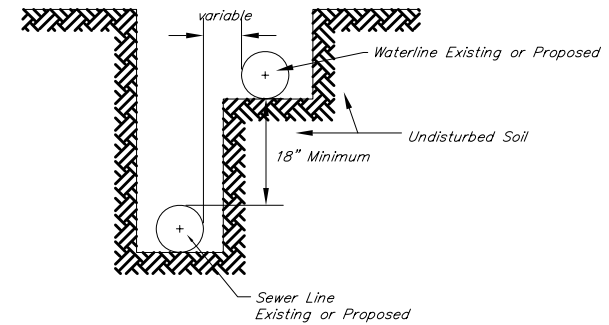
WATER AND SEWER SEPARATION REQUIREMENTS

(VERTICAL SEPARATION)

Proposed sewer (or water) is located 10 feet or more from existing water (or sewer).

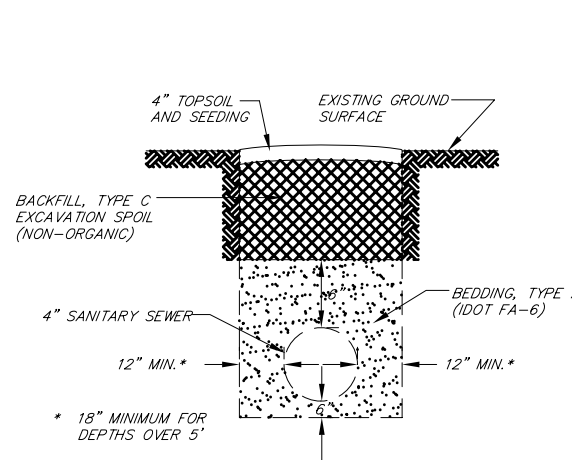


Proposed sewer (or water) is located less than 10 feet from existing water (or sewer).



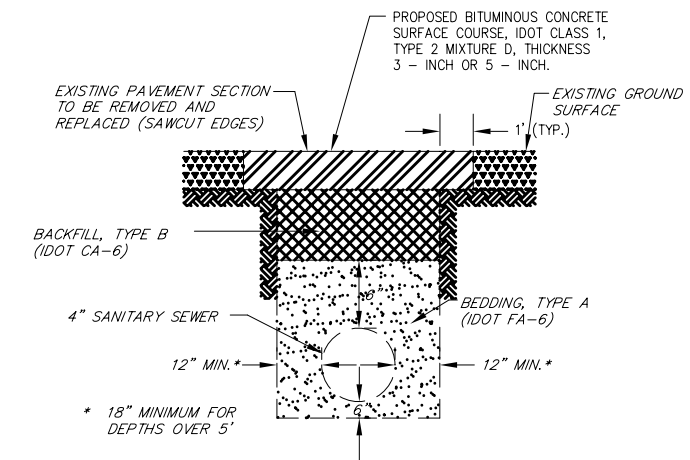
WATER AND SEWER SEPARATION REQUIREMENTS

(HORIZONTAL SEPARATION)



TYPICAL TRENCH DETAIL

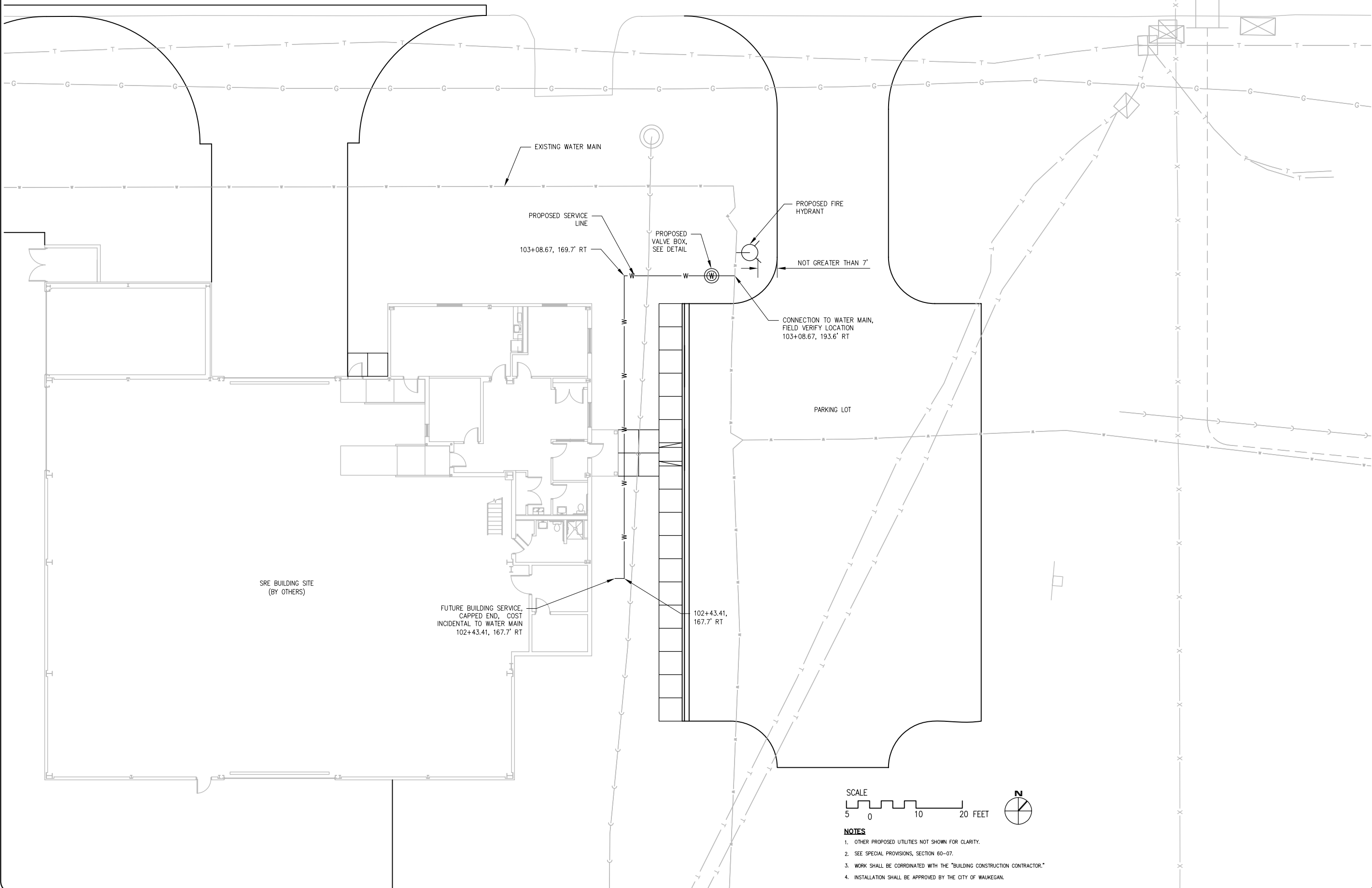
(OUTSIDE OF PAVEMENT AREAS)



TYPICAL TRENCH DETAIL

(IN PAVEMENT AREAS)

PLANE REST DRIVE



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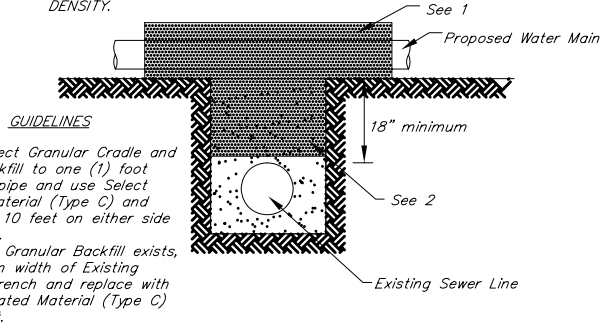
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WATER MAIN PLAN
 SNOW REMOVAL EQUIPMENT BUILDING

JAN 26, 2010 12:05 PM HAUSM00682
 I:\05\JOBS\00831\05A8001\DRAWINGS\SHEETS\17-WATER MAIN PLAN.DWG

Proposed water main above existing sewer line with 18" minimum separation.

NOTE: TYPE C MATERIAL SHALL BE COMPACTED TO 90% OF MODIFIED PROCTOR MAXIMUM DENSITY.

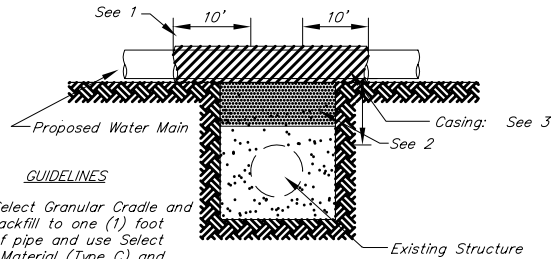


GUIDELINES

1. Omit Select Granular Cradle and Granular Backfill to one (1) foot over top of pipe and use Select Excavated Material (Type C) and compact for 10 feet on either side of sewer line.
2. If Select Granular Backfill exists, remove within width of Existing Sewer Line trench and replace with Select Excavated Material (Type C) and compact.

Proposed water main above existing sewer line with less than 18" separation.

NOTE: TYPE C MATERIAL SHALL BE COMPACTED TO 90% OF MODIFIED PROCTOR MAXIMUM DENSITY.



GUIDELINES

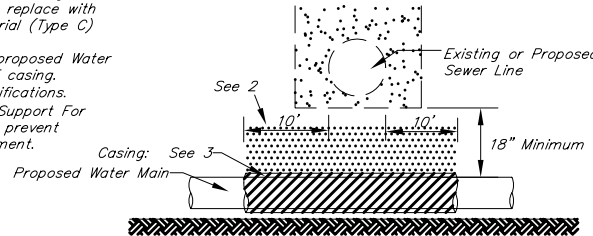
1. Omit Select Granular Cradle and Granular Backfill to one (1) foot over top of pipe and use Select Excavated Material (Type C) and compact for 10 feet on either side of sewer line.
2. If Select Granular Backfill exists, remove within width of Existing Sewer Line trench and replace with Select Excavated Material (Type C) and compact.
3. Use a casing for proposed Water Main and seal ends of casing. See Construction Specifications.
4. Point loads shall not be allowed between water main or water main casing and sewer.

WATER AND SEWER SEPARATION REQUIREMENTS

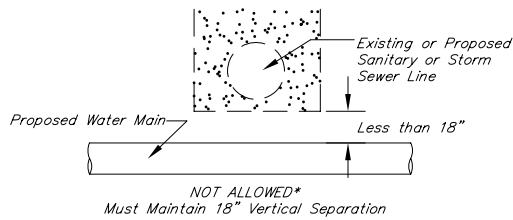
(VERTICAL SEPARATION)

Proposed water main below existing or proposed sewer line with 18" minimum separation.

NOTE: TYPE C MATERIAL SHALL BE COMPACTED TO 90% OF MODIFIED PROCTOR MAXIMUM DENSITY.



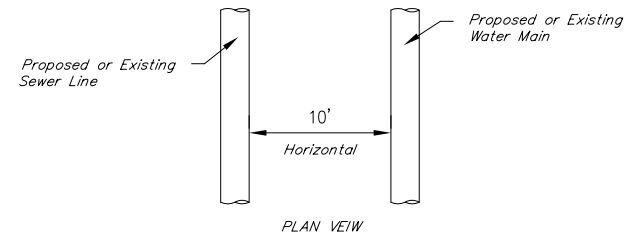
Proposed water main below existing or proposed sewer line with less than 18" separation.



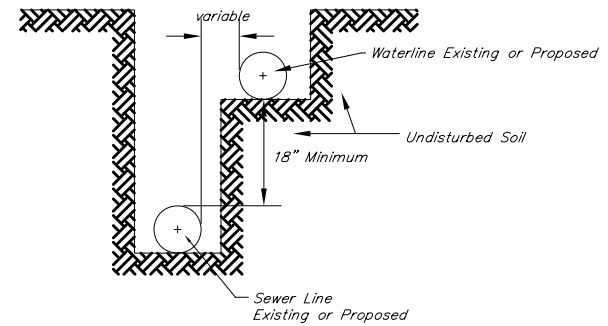
WATER AND SEWER SEPARATION REQUIREMENTS

(VERTICAL SEPARATION)

Proposed sewer (or water) is located 10 feet or more from existing water (or sewer).



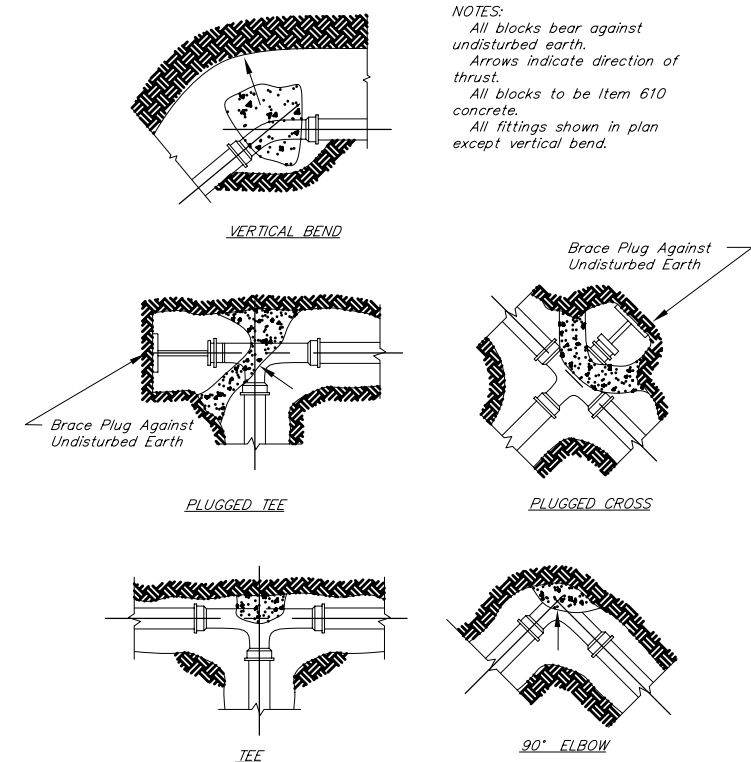
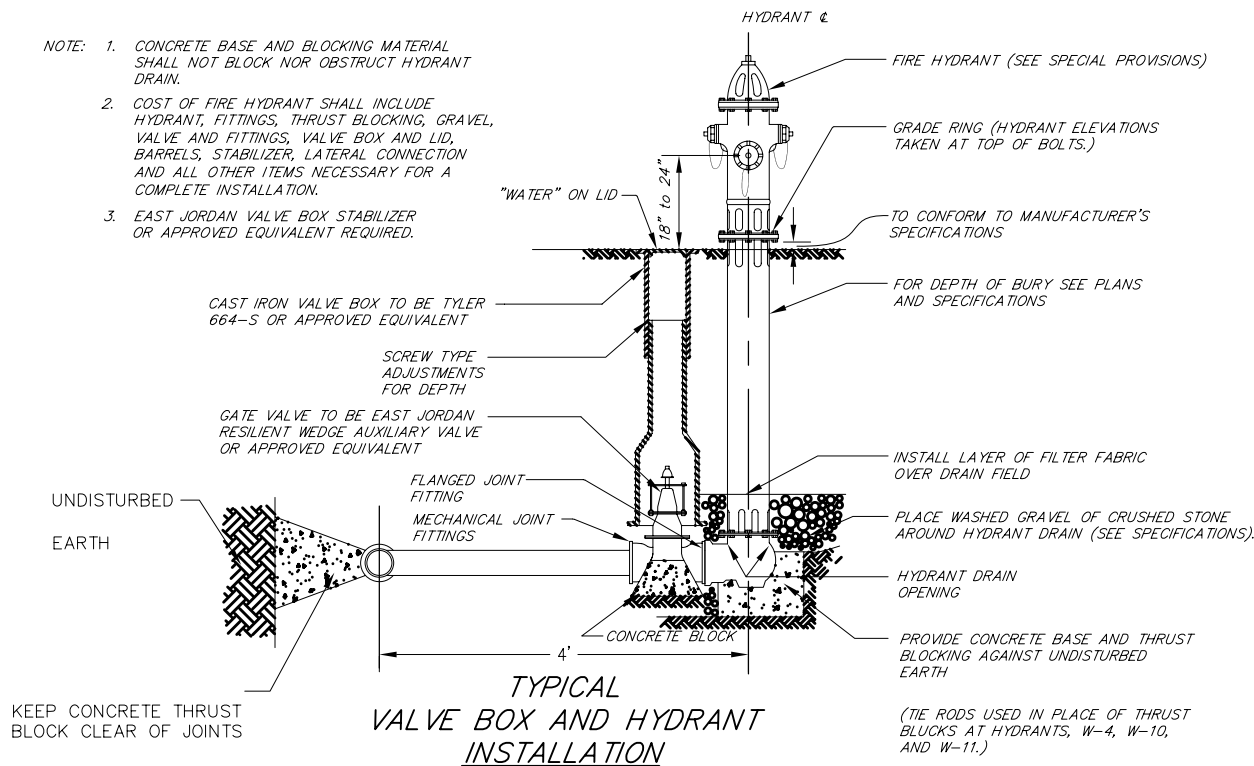
Proposed sewer (or water) is located less than 10 feet from existing water (or sewer).



WATER AND SEWER SEPARATION REQUIREMENTS

(HORIZONTAL SEPARATION)

- NOTE:
1. CONCRETE BASE AND BLOCKING MATERIAL SHALL NOT BLOCK NOR OBSTRUCT HYDRANT DRAIN.
 2. COST OF FIRE HYDRANT SHALL INCLUDE HYDRANT, FITTINGS, THRUST BLOCKING, GRAVEL, VALVE AND FITTINGS, VALVE BOX AND LID, BARRELS, STABILIZER, LATERAL CONNECTION AND ALL OTHER ITEMS NECESSARY FOR A COMPLETE INSTALLATION.
 3. EAST JORDAN VALVE BOX STABILIZER OR APPROVED EQUIVALENT REQUIRED.



NOTES:
 All blocks bear against undisturbed earth.
 Arrows indicate direction of thrust.
 All blocks to be Item 610 concrete.
 All fittings shown in plan except vertical bend.

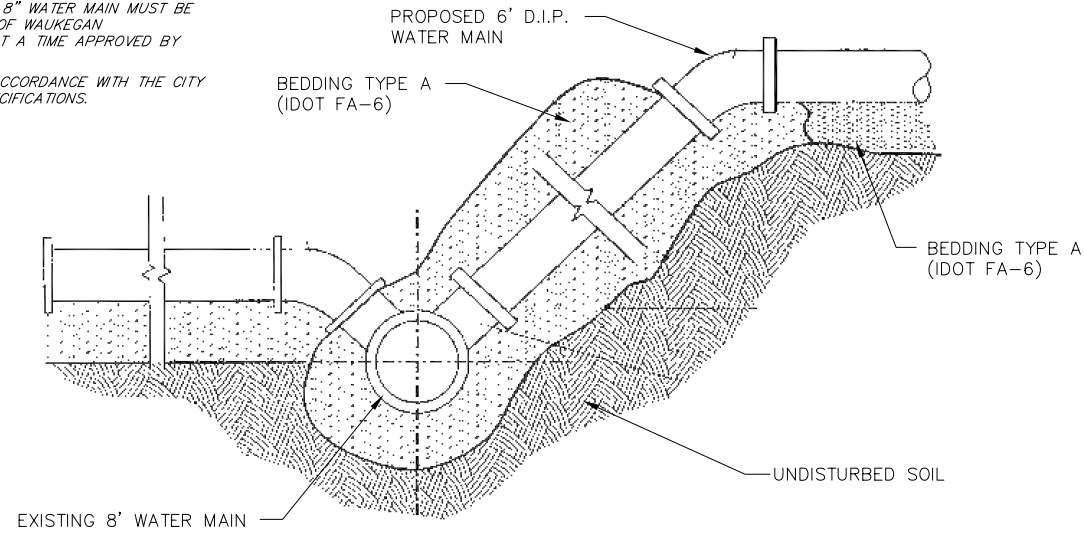
TYPICAL THRUST BLOCK INSTALLATIONS

JAN 26, 2010 12:05 PM HAUSM00682 I:\05\JOBS\00831\05A8001\DRAWINGS\SHEETS\18-WATER MAIN DETAILS.DWG

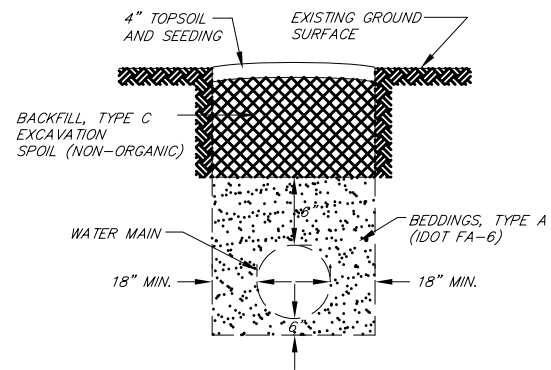
DETAILS SHOWN ARE NOT TO SCALE

REVISION				
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WAUKEGAN REGIONAL AIRPORT WAUKEGAN, LAKE COUNTY, ILLINOIS				
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WATER MAIN DETAILS SNOW REMOVAL EQUIPMENT BUILDING				
18				
of 22 sheets				

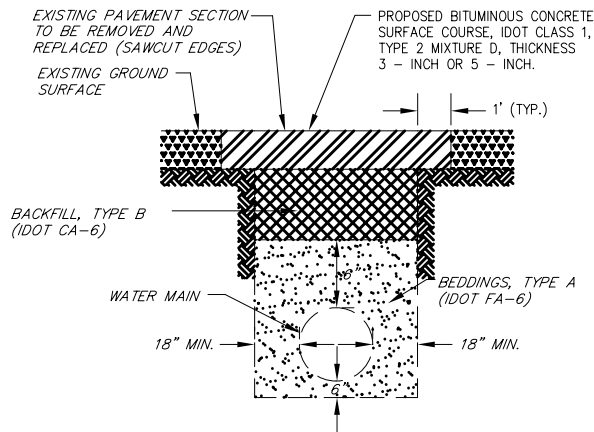
- NOTES:
 1. CONNECTION TO THE EXISTING 8" WATER MAIN MUST BE COORDINATED WITH THE CITY OF WAUKEGAN INSPECTOR AND COMPLETED AT A TIME APPROVED BY THE CITY.
 2. WORK TO BE COMPLETED IN ACCORDANCE WITH THE CITY OF WAUKEGAN STANDARD SPECIFICATIONS.



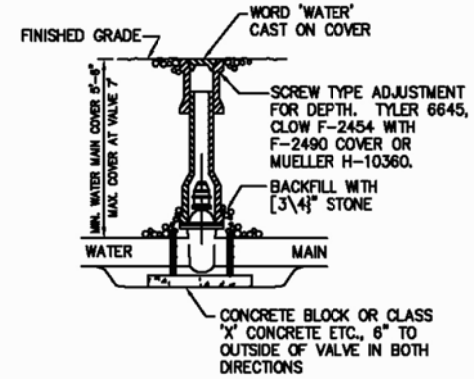
**WATER MAIN CONNECTION
DETAIL**



**TYPICAL
TRENCH DETAIL
(IN UNPAVED AREAS)**



**TYPICAL
TRENCH DETAIL
(IN PAVEMENT AREAS)**



- NOTES:
 1. RESILIENT WEDGE GATE VALVE—U.S. PIPE, CLOW OR MUELLER
 2. VALVE BOX SHALL BE USED FOR WATER MAIN SIZE 6", 8", 10" AND 12" ONLY.
 3. BACKFILL THE AREA AROUND THE VALVE BOX WITH [3/4]" STONE.
 4. VALVES WITHIN 5' OF PAVED AREAS SHALL BE INSTALLED WITH A VALVE VAULT.

VALVE BOX

JAN 26, 2010 12:06 PM HAUSM00682
 I:\05\JOBS\00831\05A8001\DRAWINGS\SHEETS\19-WATER MAIN DETAILS2.DWG

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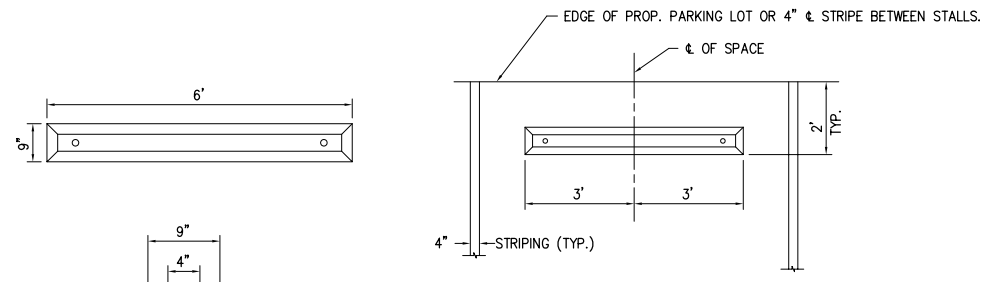
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WATER MAIN DETAILS
 SNOW REMOVAL EQUIPMENT BUILDING

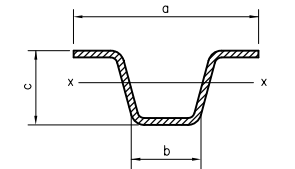


NOTE
 1. CONCRETE TO BE REINFORCED IDOT CLASS PC.
 2. PARKING BLOCKS TO BE ANCHORED WITH 1" LAG PINS.

**TYPICAL PRECAST CONCRETE PARKING BLOCK
 DETAIL AND LOCATION**

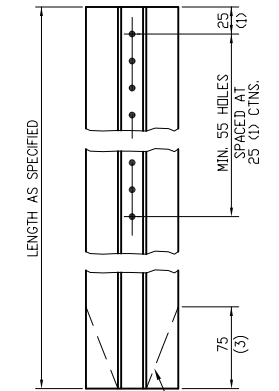
NOTES:

- DIMENSIONS FOR CROSS SECTIONS ARE MINIMUM.
- Sx-x IS THE MINIMUM SECTION MODULUS ABOUT THE X-X AXIS OF THE POST AS SHOWN. FOR POST IN WHICH HOLES ARE PUNCHED OR DRILLED FOR MORE THAN HALF THEIR LENGTH, Sx-x SHALL BE COMPUTED FOR THE NEXT SECTION.
- SOIL PRESSURE: MINIMUM ALLOWABLE SOIL PRESSURE = 1.25 TSF (120 KLA).
- ALL HOLES ARE 3/8" (10mm) IN DIAMETER.
- LOADING FOR 60 MPH (95 km/h) WIND VELOCITY WITH 30% GUST FACTOR, NORMAL TO SIGN.
- MATERIALS: POST SHALL BE STRUCTURAL STEEL-BREAKAWAY CONFORMING WITH THE REQUIREMENTS OF SECTION 1093.01 OF THE IDOT SPECIFICATIONS. BOLTS, NUTS AND WASHERS SHALL BE HIGH-STRENGTH STEEL, GALVANIZED AND SHALL CONFORM TO SECTION 1006.08 OF THE IDOT SPECIFICATIONS.
- IN AREAS WHERE POSTS PENETRATE PAVEMENT, THE PAVEMENT SHALL BE CORED. AFTER THE POST IS SET, THE HOLE SHALL BE GROUTED WITH AN IDOT APPROVED NON-SHRINK GROUT. COST INCIDENTAL TO SIGN.

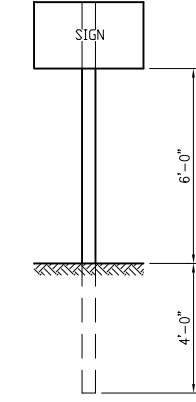


SECTION

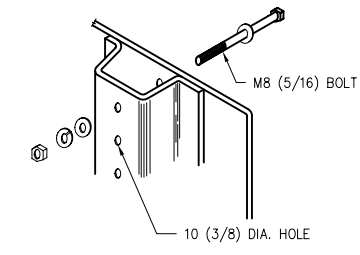
TYPE B	STEEL	a	b	c	Sx-x mm ³ (in. ³)	kg/m (lb./ft.)
		ALUMINUM	81 (3 3/16)	32 (1 1/4)	38 (1 1/2)	5.588 (0.341)
		118 (4 5/8)	57 (2 1/4)	60 (2 3/8)	14.552 (0.888)	1.93 (1.30)



TYPE B

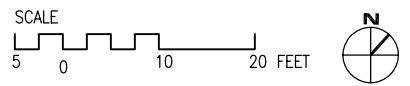
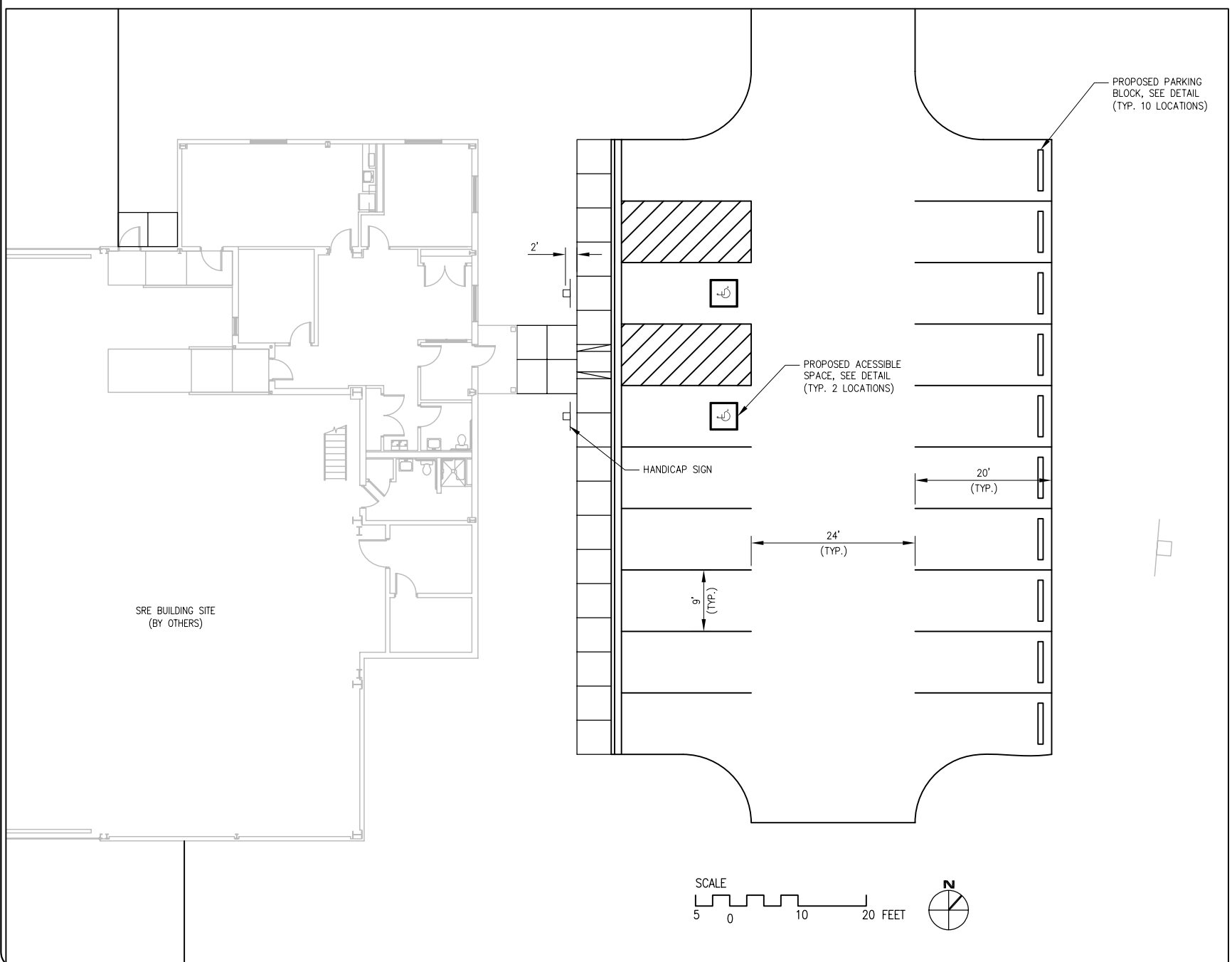


ONE POST INSTALLATION



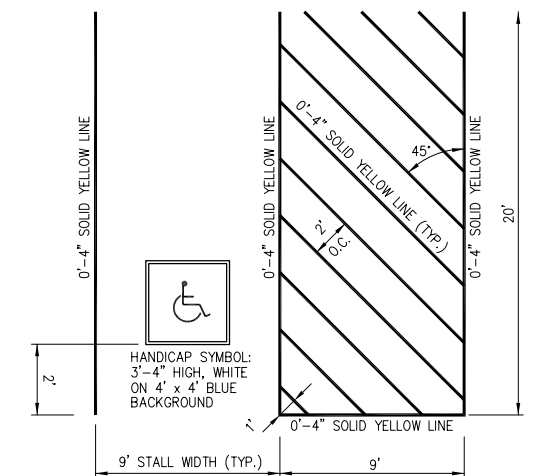
NOTE: MINIMUM OF 2 BOLTS PER POST REQUIRED
DETAIL OF MOUNTING SIGN TO POST

**ROADWAY SIGN POST
 (IDOT STANDARD 720011)**



MARKING NOTES:

- ALL WHITE AND YELLOW PAVEMENT MARKINGS TO INCLUDE REFLECTIVE GLASS SPHERES.
- ALL MARKINGS TO BE WATERBORNE PAINT.
- DIMENSIONS GIVEN TO CENTERLINE OF MARKING.



ACCESSIBLE SPACE DETAIL

DETAILS SHOWN ARE NOT TO SCALE

REVISION	DATE

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 WAUKEGAN, LAKE COUNTY, ILLINOIS

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REVIEWED	RMH
2/23/09	

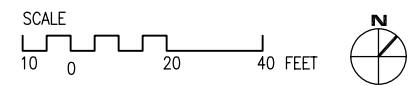
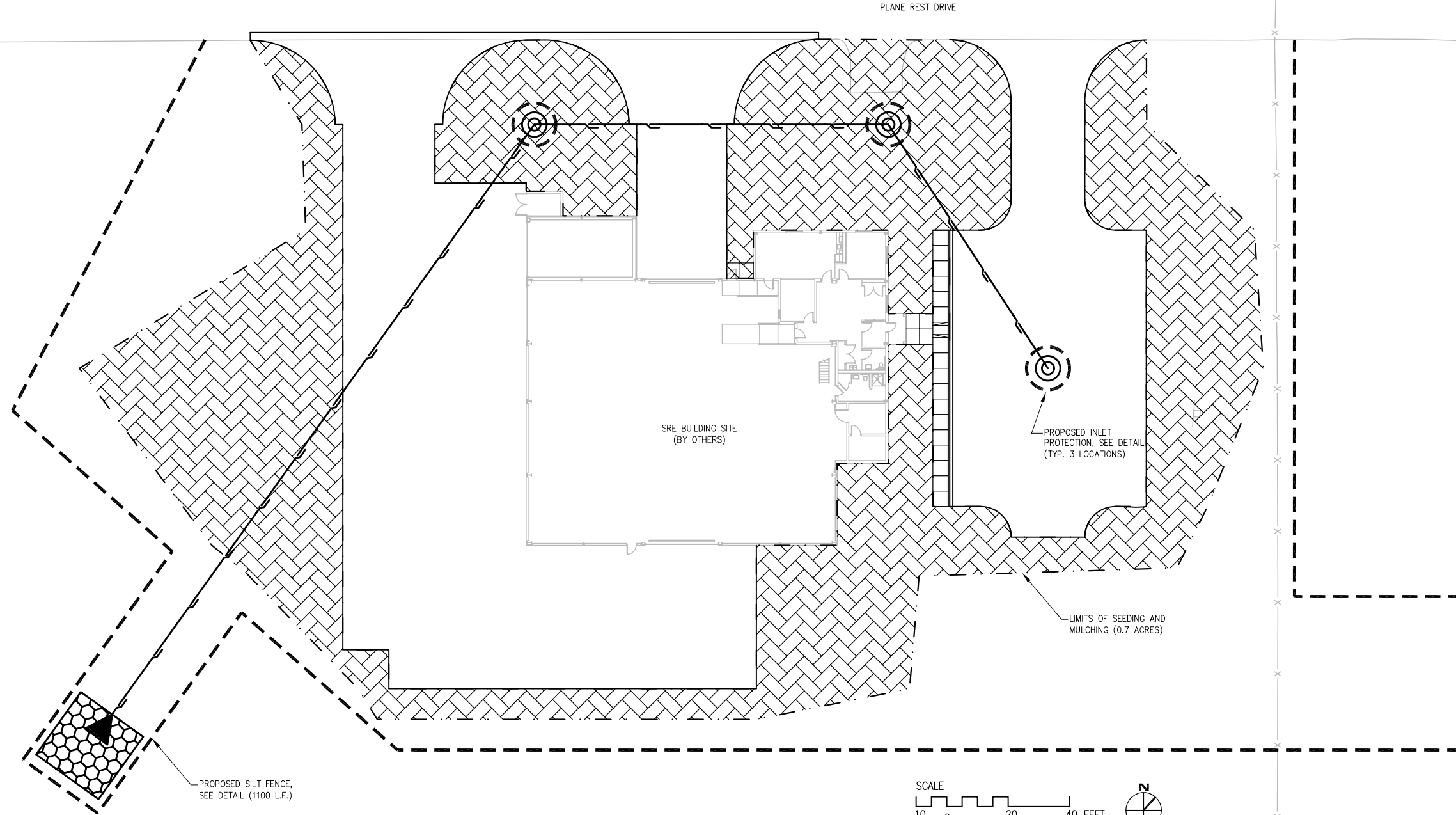
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**MARKING PLAN AND DETAILS
 SNOW REMOVAL EQUIPMENT BUILDING**

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- LEGEND**
- PROPOSED SEEDING AND MULCHING (0.7 ACRES)
 - LIMITS OF SEEDING AND MULCHING
 - PROPOSED INLET PROTECTION (3 EACH)

- LANDSCAPING NOTES:**
1. OUTER LIMITS OF SEEDING AND MULCHING TO FOLLOW THE LIMITS SHOWN ON THIS SHEET.
 2. SEE CROSS SECTIONS AND STAKING PLANS FOR ADDITIONAL CONSTRUCTION LIMITS INFORMATION.

REVISION	DATE

WAUKEGAN REGIONAL AIRPORT
 WAUKEGAN, LAKE COUNTY, ILLINOIS

Hanson No.	83105A8001	
Filename		
Scale	2/27/09	
Date		
LAYOUT	LDH	1/15/09
DRAWN	LDH	1/15/09
REVIEWED	RMH	2/23/09

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STORM WATER POLLUTION
 PREVENTION PLAN
 SNOW REMOVAL EQUIPMENT BUILDING

STORM WATER POLLUTION PREVENTION NOTES

GENERAL

THE CONTRACTOR SHALL IMPLEMENT ALL PROVISIONS OF THE CONTRACT DOCUMENTS TO ASSURE THAT STORM WATER POLLUTION PREVENTION ITEMS ARE CONSTRUCTED AND MAINTAINED IN A TIMELY MANNER. SEDIMENTATION MUST NOT BE TRANSPORTED OFF THE CONSTRUCTION SITE. PERMANENT DRAINAGE FEATURES AND VEGETATIVE MEASURES SHALL BE PROVIDED AS SOON AS POSSIBLE.

THE MAINTENANCE OF ALL STORM WATER POLLUTION PREVENTION MEASURES IS INCIDENTAL TO THE ASSOCIATED ITEM.

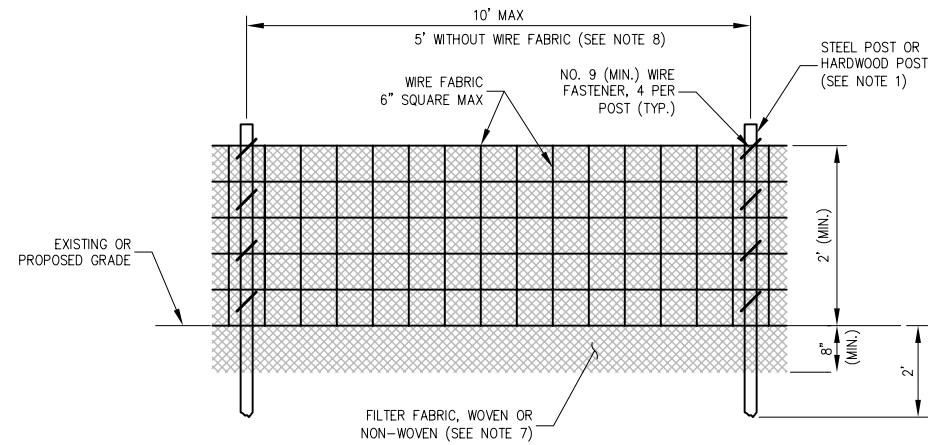
POLLUTION PREVENTION MEASURES

THE CONTRACTOR SHALL BE REQUIRED TO IMPLEMENT AND MAINTAIN STORM WATER POLLUTION PREVENTION PRACTICES AND MEASURES PRIOR TO THE STRIPPING OF EXISTING VEGETATION WHERE EVER POSSIBLE AND AS SOON AS CONSTRUCTION PERMITS IN OTHER AREAS. POLLUTION CONTROL MEASURES SHALL BE IN ACCORDANCE WITH THE CONTRACT DOCUMENTS, INCLUDING THESE CONSTRUCTION PLANS, AND WITH STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL ILLINOIS ENVIRONMENTAL PROTECTION AGENCY, CURRENT ISSUE. THE CONTRACTOR SHALL ADJUST HIS OPERATIONS AND IMPLEMENT POLLUTION CONTROL MEASURES SO THAT NO RUNOFF FROM STRIPPED AREAS WILL LEAVE THE CONSTRUCTION SITE OTHER THAN THROUGH SEDIMENT TRAPS OR OTHER SUITABLE CONTROL MEASURES.

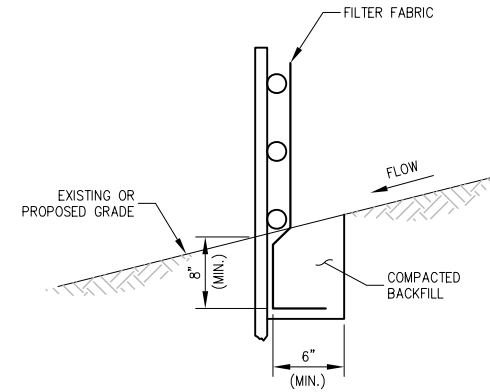
POLLUTION CONTROL ITEMS SHALL BE PROVIDED AS NOTED ON THE STORM WATER POLLUTION PREVENTION PLAN AND IN THE STORM WATER POLLUTION PREVENTION DETAILS AND AS DIRECTED BY THE ENGINEER. THE LIMITS OF SUCH MEASURES SHALL BE STAKED BY THE CONTRACTOR PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. SUCH LIMITS MAY BE ADJUSTED BY THE ENGINEER TO ACCOUNT FOR ACTUAL SITE CONDITIONS EXPERIENCED DURING CONSTRUCTION. ADDITIONAL COMPENSATION FOR MEASURES EXCEEDING THE PLAN QUANTITIES WILL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR EACH ITEM.

THE CONTRACTOR IS TO MAINTAIN AND ADJUST, REPAIR OR REPLACE ALL POLLUTION PREVENTION MEASURES AS REQUIRED OR AS DIRECTED BY THE ENGINEER UNTIL PERMANENT VEGETATION HAS BEEN ESTABLISHED. MAINTENANCE OF POLLUTION CONTROL MEASURES IS TO BE PROVIDED AT NO ADDITIONAL COST TO THE CONTRACT.

ADDITIONAL STORMWATER POLLUTION PREVENTION MEASURES ARE EXISTING ON SITE LOCATED AT DRAINAGE FACILITIES AND ALONG THE PROPERTY LINE.



ELEVATION

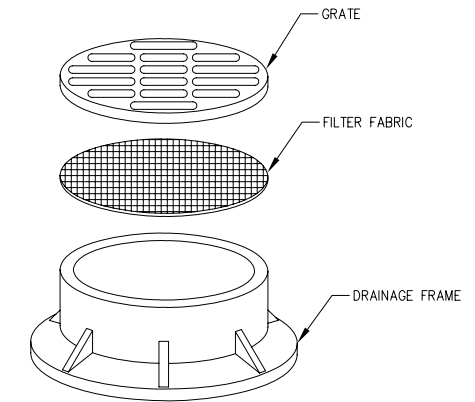


FABRIC ANCHOR DETAIL

NOTES:

- FENCE POST SHALL BE EITHER STEEL "T" LINE POST OR HARDWOOD POST WITH A MINIMUM SECTIONAL AREA OF 3.0 SQUARE INCHES.
- TOP AND BOTTOM WIRE OF WIRE FABRIC SHALL BE MINIMUM GAGE NO. 9. INTERMEDIATE WIRES OF THE WIRE FABRIC SHALL BE MINIMUM GAGE NO. 11.
- WIRE FABRIC SHALL BE SECURELY FASTENED TO FENCE POSTS WITH NO. 9 GAGE WIRE MINIMUM. FOUR (4) FASTENERS PER POST REQUIRED.
- FILTER FABRIC SHALL BE SECURELY FASTENED TO WIRE FABRIC AND POSTS WITH TIES OR STAPLES SPACED AT 12" APART AT THE TOP, MIDDLE AND BOTTOM.
- WHEN TWO SECTIONS OF FILTER FABRIC MEET, THEY SHALL BE OVERLAPPED BY 6" AND FOLDED AND ATTACHED TO THE WIRE FABRIC AT A POST.
- MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED AND REPLACED WHEN BULGES DEVELOP IN THE SILT FENCE.
- FILTER FABRIC SHALL BE IN ACCORDANCE WITH SPECIAL PROVISIONS WITH EQUIVALENT OPENING SIZE OF AT LEAST 30 FOR NONWOVEN AND 50 FOR WOVEN.
- WIRE FABRIC MAY BE OMITTED IF A MAXIMUM OF 5 FEET IS USED FOR POST-TO-POST SPACING.
- SILT FENCE SHALL BE INSTALLED PRIOR TO ANY GRADING WORK IN THE AREA TO BE PROTECTED. PERIODIC INSPECTION SHALL BE PERFORMED AND REQUIRED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN EVENT.
- FENCE POSTS SHALL BE REMOVED WHEN DIRECTED AT PROJECT END.

SILT FENCE DETAIL



INLET PROTECTION - DRAINAGE STRUCTURE FILTER WRAP

NOTES:

- FILTER WRAP TO BE PLACED IN ALL MANHOLES AS SHOWN.
- FABRIC SHALL BE IN CONFORMANCE WITH MATERIALS SPECIFIED FOR SILT FENCE.
- FABRIC SHALL OVERLAY FRAME BY 2 INCHES (MINIMUM).
- CONTRACTOR SHALL CLEAR DEBRIS AND SILT AS REQUIRED FROM FABRIC TO MAINTAIN DRAINAGE THROUGH THE STRUCTURE.
- FABRIC SHALL REMAIN IN PLACE UNTIL TURFED AREAS HAVE DEVELOPED A MINIMUM OF 80% OF COVERAGE.
- COST OF FILTER WRAP SHALL BE INCIDENTAL TO INLET PROTECTION.

DETAILS SHOWN ARE NOT TO SCALE