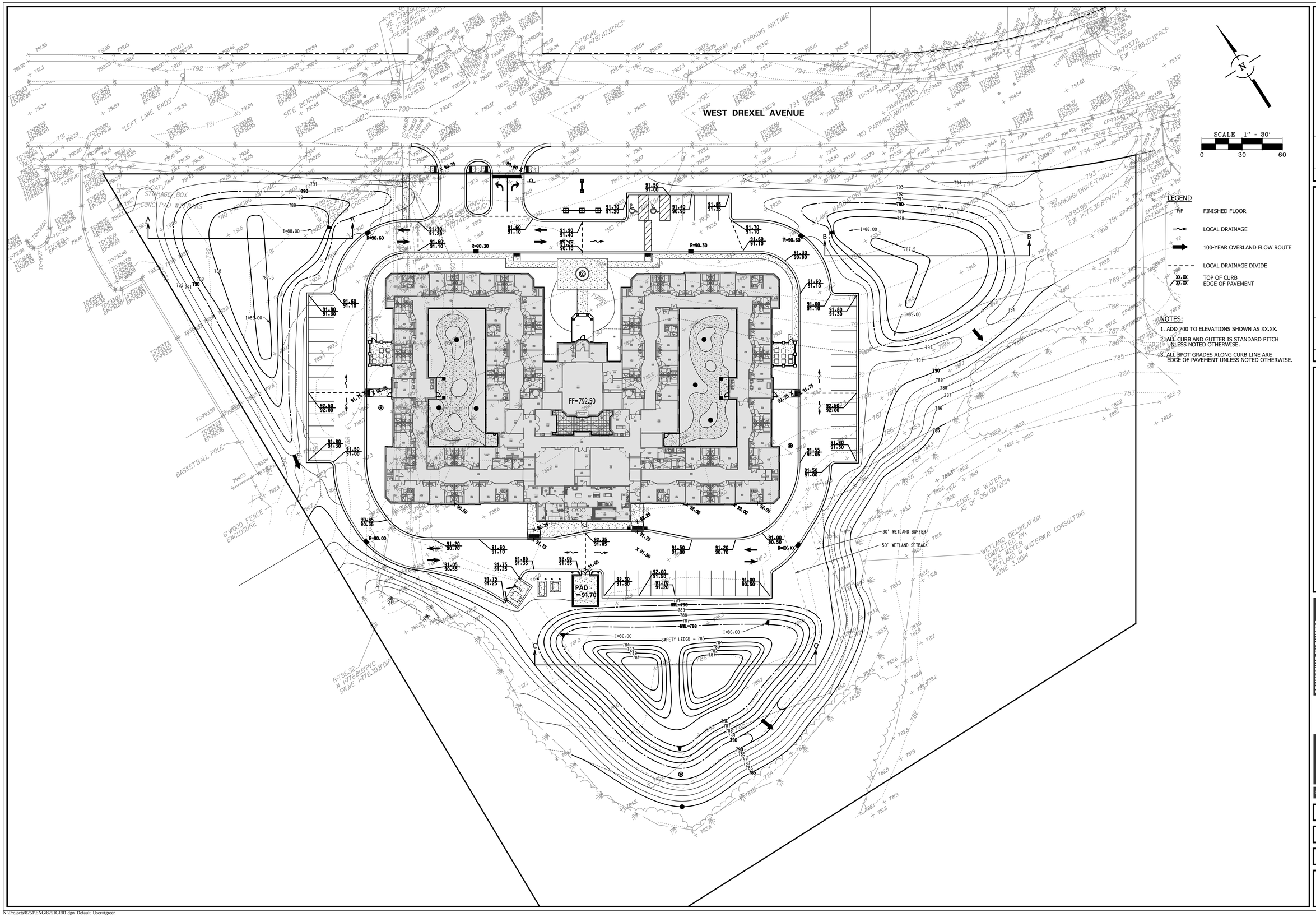

NOTES:

1. ADD 700 TO ELEVATIONS SHOWN AS XX.XX.
2. ALL CURB AND GUTTER IS STANDARD PITCH UNLESS NOTED OTHERWISE.
3. ALL SPOT GRADES ALONG CURB LINE ARE EDGE OF PAVEMENT UNLESS NOTED OTHERWISE.

NO.	DATE	REMARKS

NO.	DATE	REMARKS

GRADING PLAN

AUTUMN LEAVES
FRANKLIN, WISCONSIN

CONSULTING ENGINEERS
SITE DEVELOPMENT ENGINEERS
LAND SURVEYORS
9575 W. Higgins Road, Suite 700
Rosemont, Illinois 60018
Phone: (847) 696-4060 Fax: (847) 696-4065
SPACECO INC.

FILENAME: 8251GR01.DGN

DATE: 12/23/14

JOB NO. 8251

SHEET GR1
5 OF 13

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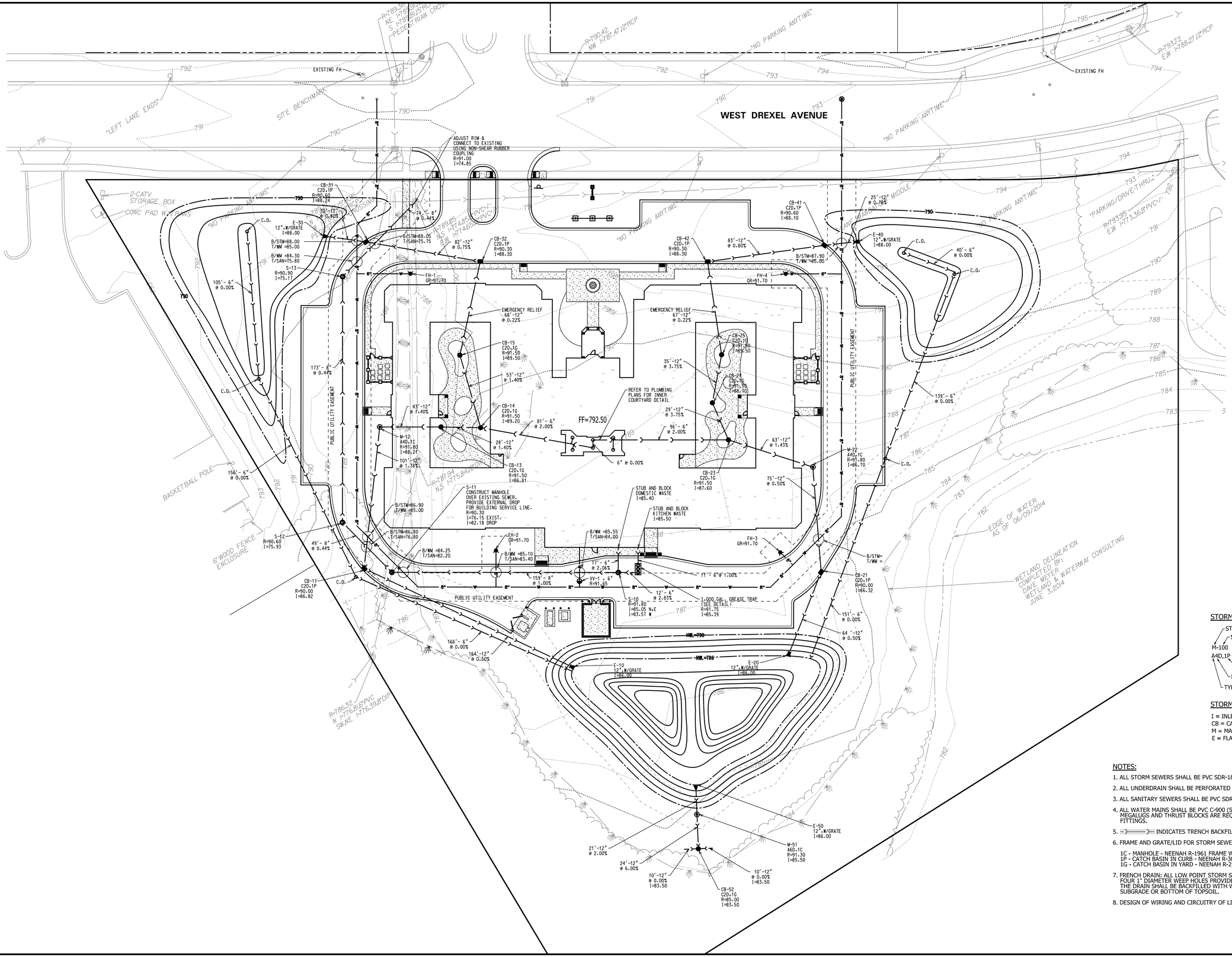

STORM STRUCTURE LEGEND

STRUCTURE ABBREVIATION
STRUCTURE NUMBER
M-100
A4D,1P
FRAME AND LID TYPE
DIAMETER & SIZE OF STRUCTURE
TYPE OF STRUCTURE

STORM STRUCTURE ABBREVIATIONS

I = INLET
CB = CATCH BASIN
M = MANHOLE
E = FLARED END SECTION

NOTES:

1. ALL STORM SEWERS SHALL BE PVC SDR-18 UNLESS NOTED OTHERWISE.
2. ALL UNDERDRAIN SHALL BE PERFORATED PVC SDR-26 UNLESS NOTED OTHERWISE.
3. ALL SANITARY SEWERS SHALL BE PVC SDR-26 UNLESS NOTED OTHERWISE.
4. ALL WATER MAINS SHALL BE PVC C-900 (SDR-18) UNLESS NOTED OTHERWISE. MEGALUGS AND THRUST BLOCKS ARE REQUIRED FOR ALL WATERMAIN FITTINGS.
5. INDICATES TRENCH BACKFILL REQUIRED.
6. FRAME AND GRATE/LID FOR STORM SEWER STRUCTURES
   1C - MANHOLE - NEENAH R-1961 FRAME WITH TYPE "B" CLOSED LID
   1P - CATCH BASIN IN CURB - NEENAH R-3075 WITH TYPE "R" GRATE
   1G - CATCH BASIN IN YARD - NEENAH R-2564 WITH BEEHIVE GRATE
7. FRENCH DRAIN: ALL LOW POINT STORM STRUCTURES ARE TO HAVE FOUR 1" DIAMETER WEEP HOLES PROVIDED 24" BELOW THE TOP OF LID. THE DRAIN SHALL BE BACKFILLED WITH WASHED STONE TO TOP OF SUBGRADE OR BOTTOM OF TOPSOIL.
8. DESIGN OF WIRING AND CIRCUITRY OF LIGHTING WILL BE BY OTHERS.

NO.	DATE	REMARKS

NO.	DATE	REMARKS

UTILITY PLAN

AUTUMN LEAVES
FRANKLIN, WISCONSIN

CONSULTING ENGINEERS
SITE DEVELOPMENT ENGINEERS
LAND SURVEYORS
9575 W. Higgins Road, Suite 700
Rosemont, Illinois 60018
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SPACECO INC.

FILENAME: 8251UT01.DGN
DATE: 12/23/14
JOB NO. 8251
SHEET UT1
6 OF 13

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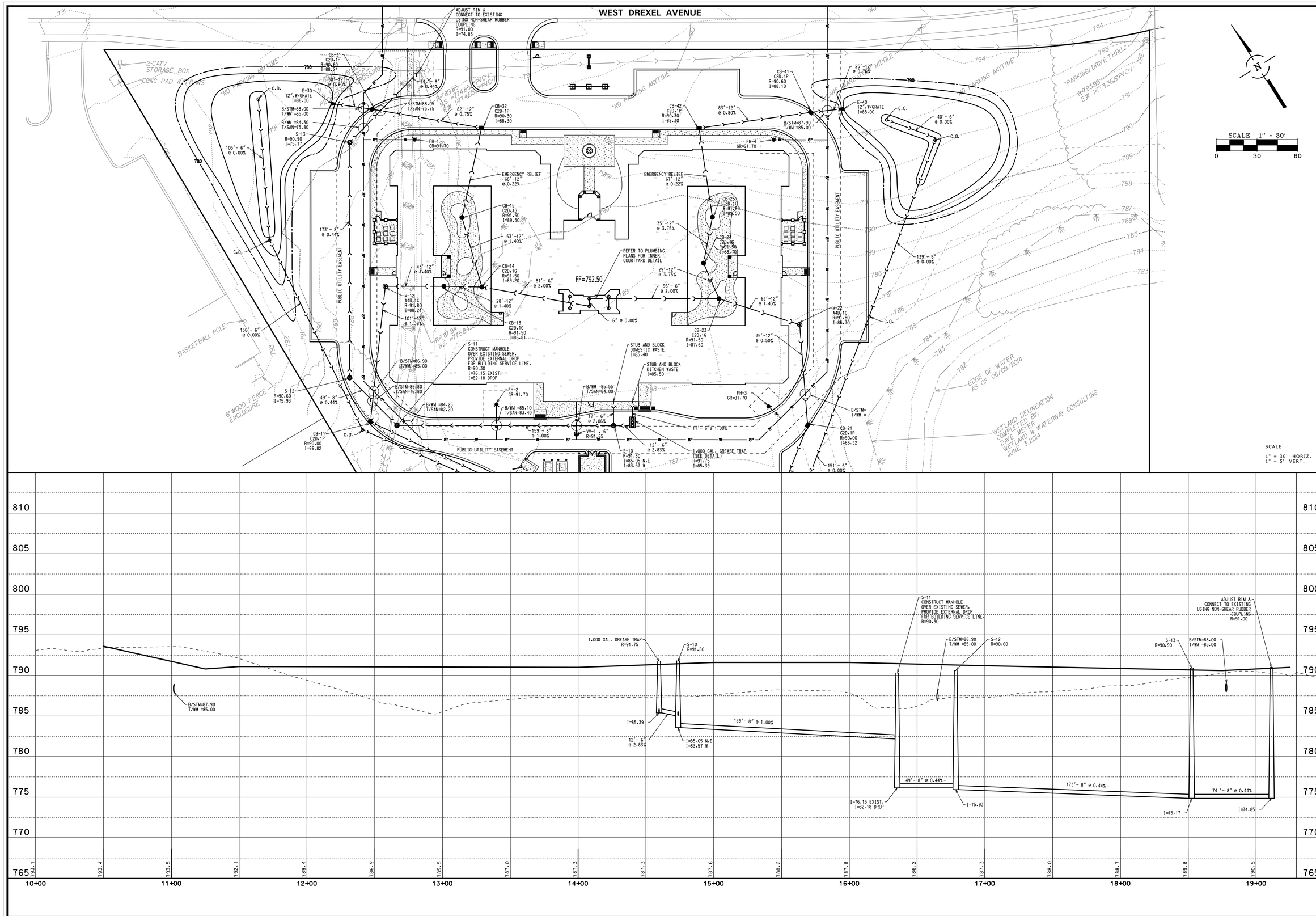

NO.	DATE	REMARKS

NO.	DATE	REMARKS

PLAN AND PROFILES

AUTUMN LEAVES
FRANKLIN, WISCONSIN

CONSULTING ENGINEERS
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LAND SURVEYORS
9575 W. Higgins Road, Suite 700
Rosemont, Illinois 60018
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SPACECO INC.

FILENAME: 8251PP1.DGN

DATE: 12/23/14

JOB NO. 8251

SHEET
PP1
7 OF 13

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This Soil Erosion & Sediment Control (SESC) Plan has been prepared to fulfill one of the requirements of the National Pollutant Discharge Elimination System (NPDES) General Permit No. ILR10_____. The SESC Plan should be maintained on site as an integral component of the Storm Water Pollution Prevention Plan (SWPPP). The SWPPP, including the SESC Plan, should be amended whenever there is a change in design, construction, operation, or maintenance, which has a significant effect on the potential for the discharge of pollutants to the Waters of the State and which has not otherwise been addressed in the SWPPP. The SWPPP, shall also be amended if it proves to be ineffective in eliminating or significantly minimizing pollutants, or in otherwise achieving the general objectives of controlling pollutants in storm water discharges associated with construction site activity. In addition, the SWPPP shall be amended to identify any new contractor and/or subcontractor that will implement a measure of the SWPPP.

1. SITE DESCRIPTION

A. The following is a description of the nature of the construction activity:_____.

B. The following is a description of the intended sequence of construction activities which will disturb soils for major portions of the construction site:

Describe proposed construction sequence, sample follows:

1) Install perimeter sediment control measures
a) Selective vegetation removal for silt fence installation
b) Silt fence installation
c) Construction fencing around areas not to be disturbed
d) Stabilized construction entrance
2) Clear and grub (as necessary)
3) Construct sediment trapping devices (sediment traps, sediment basins, etc.)
4) Construct detention facilities and outlet control structure with restrictor & temporary perforated riser
5) Strip topsoil, stockpile topsoil and grade site
6) Temporarily stabilize topsoil stockpiles (seed and silt fence around toe of slope)
7) Install storm sewer, sanitary sewer, watermain and associated inlet & outlet protection
8) Permanently stabilize detention basins with seed and erosion control blanket
9) Temporarily stabilize all areas including lots that have reached mass grade
10) Install roadways
11) Permanently stabilize all outlot areas
12) Install buildings and grade individual lots
13) Permanently stabilize lots
14) Remove all temporary soil erosion and sediment control measures after the site is stabilized with vegetation

C. The site has a total acreage of approximately _____acres. Construction activity will disturb approximately_____acres of the site.

D. 1) An estimated runoff coefficient of the site after construction activities are completed is _____.
2) Existing data describing the soil or quality of any discharge from the site is included in _____.

E. Refer to Sheets_____ for a site plan indicating:
1) drainage patterns;
2) approximate slopes anticipated before and after major grading activities;
3) locations where vehicles enter or exit the site and controls to minimize off-site sediment tracking;
4) areas of soil disturbance;
5) the location of major structural and nonstructural controls;
6) the location of areas where stabilization practices are expected to occur;
7) surface waters (including wetlands); and,
8) locations where storm water is discharged to a surface water.

F. 1) The name of the receiving water(s) is(are):_____.
2) The name of the ultimate receiving water is:_____.
3) The extent of wetland acreage at the site is _____acres.

G. Potential sources of pollution associated with this construction activity may include:

- sediment from disturbed soils
- portable sanitary stations
- fuel tanks
- staging areas
- waste containers
- chemical storage areas
- oil or other petroleum products
- adhesives
- tar
- solvents
- detergents
- fertilizers
- raw materials (e.g., bagged portland cement)
- construction debris
- landscape waste
- concrete and concrete trucks
- litter

2. CONTROLS

This section of the SESC Plan addresses the various controls that should be implemented for each of the major construction activities described in the "Site Description" section. For each measure identified in the SWPPP, the contractor(s) or subcontractor(s) that will implement the measure should be identified. All contractors and subcontractors that are identified should be required to sign a copy of the certification statement from Part IV.F. of the ILR10 Permit (in accordance with Part VI.G. - Signatory Requirements, of the ILR10 Permit). All signed certification statements should be maintained in the SWPPP.

A. Approved State or Local Plans

The management practices, controls and other provisions contained in the SWPPP should be at least as protective as the requirements contained in the Illinois Environmental Protection Agency's (IEPA) and the United States Department of Agriculture's Natural Resource Conservation Service Illinois Urban Manual, 2012. Requirements specified in sediment and erosion control site plans or site permits or storm water management site plans or site permits approved by local officials that are applicable to protecting surface water resources are, upon submittal of a Notice of Intent (NOI) to be authorized to discharge under the ILR10 permit, incorporated by reference and are enforceable under the ILR10 permit even if they are not specifically included in a SWPPP required under the ILR10 permit. This provision does not apply to provisions of master plans, comprehensive plans, non-enforceable guidelines or technical guidance documents that are not identified in a specific plan or permit that is issued for the construction site.

The soil erosion and sediment control measures for this site should meet the requirements of the following agencies:

- Municipality (be specific)
- County Agency and/or SWCD (be specific)
- IEPA
- U.S. Army Corps of Engineers

B. Control Implementation Schedule

Best Management Practices will be implemented on an as-needed basis to protect water quality. Perimeter controls of the site should be installed prior to soil disturbance (excluding soil disturbance necessary to install the controls), including demolition activities. Perimeter controls, including the silt fence, should be actively maintained until final stabilization of those portions of the site upward of the perimeter control. Stabilized construction entrance(s) and sediment traps should be installed as described in the intended sequence of construction activities. The contractor is responsible for the adequate protection (including sediment control) of existing sewers and sewer structures during construction operations. As necessary, the appropriate sediment control measure should be installed prior to land disturbing activities.

Stabilization measures should be initiated where construction activities have temporarily or permanently ceased, in accordance with Local and State requirements, as described below. Once construction activity in an area has permanently ceased, that area should be permanently stabilized. Temporary perimeter controls should be removed after final stabilization of those portions of the site upward of the perimeter control.

C. Erosion and Sediment Controls

The appropriate soil erosion and sediment controls should be implemented on site and should be modified to reflect the current phase of construction. All temporary sediment and erosion control measures should be repaired or replaced as soon as practicable to maintain NPDES compliance. Permittee or an authorized agent is responsible for inspecting all sediment and erosion control measures at a minimum of every 7 calendar days and within 24 hours, or one working day, of the end of a 0.5-inch (or greater) rain event.

Unless otherwise indicated, all vegetative and structural erosion and sediment control practices should be installed to the Standard Practice. The contractor is responsible for the installation of any additional erosion and sediment control measures necessary to minimize erosion and sedimentation as determined by the Engineer or Primary Contact.

1) Stabilization Practices - Areas that will not be paved or covered with non-erosive material should be stabilized using procedures in substantial conformance with the Illinois Urban Manual. This SESC Plan includes site-specific soil erosion and sediment control measures. Additional erosion controls should be implemented as necessary, as determined by the Engineer or Primary Contact.

The following temporary and permanent stabilization practices, at a minimum, are proposed:

- permanent seeding
- temporary seeding
- erosion control blanket
- other measures

Site-specific scheduling of the implementation of these practices is included in the Soil Protection Chart. A record of the dates when major grading activities occur, when construction activities cease on a portion of the site, and when stabilization measures are initiated should be included in the SWPPP.

Stabilization of disturbed areas must be initiated within 1 working day of permanent or temporary cessation of earth activities and shall be completed as soon as possible but not later than 14 days from the initialization of stabilization work in an area. Exceptions to these time frames are specified below.

a. Where the initiation of stabilization measures is precluded by snow cover, stabilization measures shall be initiated as soon as practicable.

b. On areas where construction activity has temporarily ceased and will resume after 14 days, a temporary stabilization method can be used. Temporary stabilization techniques and materials shall conform to the SWPPP.

2) Structural Practices - Provided below is a description of structural practices that should be implemented, to the degree attainable to divert flows from exposed soils, store flows or otherwise limit runoff and the discharge of pollutants from exposed areas of the site. Structural practices should be placed on upland soils to the degree practicable. The installation of the following devices may be subject to Section 404 of the Clean Water Act:

- stabilized construction entrance
- silt fence
- sediment traps (provide locations and dimensions in plan set)
- other measures

D. Storm Water Management

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

1) The practices selected for implementation were determined on the basis of technical guidance contained in IEPA's Illinois Urban Manual, Federal, State, and/or Local Requirements. The storm water management measures include:

- detention basins (wet basins, dry basins, etc.)
- retention basins
- vegetated swales
- infiltration trenches
- other measures

2) Velocity dissipation devices, such as rip-rap aprons at flared end sections or level spreaders, shall be placed at discharge locations and along the length of any outfall channel as necessary to provide a non-erosive velocity flow from the structure to a watercourse so that the natural, physical, and biological characteristics and functions are maintained and protected (e.g., maintenance of hydrologic conditions, such as the hydroperiod and hydrodynamics present prior to the initiation of construction activities).

E. Waste Management

Solid waste materials including trash, construction debris, excess construction materials, machinery, tools and other items will be collected and disposed of off site by the contractor. The contractor is responsible to acquire the permit required for such disposal. Burning on site will not be permitted. No solid materials, including building materials, shall be discharged to Waters of the State, except as authorized by a Section 404 permit. All waste materials should be collected and stored in approved receptacles. No wastes should be placed in any location other than in the approved containers appropriate for the materials being discarded. There should be no liquid wastes deposited into dumpsters or other containers which may leak. Receptacles with deficiencies should be replaced as soon as possible and the appropriate clean-up procedure should take place, if necessary. Construction waste material is not to be buried on site. Waste disposal should comply with all Local, State, and Federal regulations.

On-site hazardous material storage should be minimized and stored in labeled, separate receptacles from non-hazardous waste. All hazardous waste should be disposed of in the manner specified by Local or State regulation or by the manufacturer.

F. Concrete Waste Management

Concrete waste or washout should not be allowed in the street or allowed to reach a storm water drainage system or watercourse. When practicable, a sign should be posted at each location to identify the washout. To the extent practicable, concrete washout areas should be located a reasonable distance from a storm water drainage inlet or watercourse, and should be located at least 10 feet behind the curb, if the washout area is adjacent to a paved road. A stabilized entrance that meets Illinois Urban Manual standards should be installed at each washout area.

The containment facilities should be of sufficient volume to completely contain all liquid and concrete waste materials including enough capacity for anticipated levels of rainwater. The dried concrete waste material should be picked up and disposed of properly when 66% capacity is reached. Hardened concrete can be properly recycled and used again on site (as approved by the Engineer) or hauled off site to an appropriate landfill.

G. Concrete Cutting

Concrete waste management should be implemented to contain and dispose of saw-cutting slurries. Concrete cutting should not take place during or immediately after a rainfall event. Waste generated from concrete cutting should be cleaned-up and disposed into the concrete washout facility as described above.

H. Vehicle Storage and Maintenance

When not in use, construction vehicles should be stored in a designated area(s) outside of the regulatory floodplain, away from any natural or created watercourse, pond, drainage-way or storm drain. Controls should be installed to minimize the potential of runoff from the storage area(s) from reaching storm drains or water courses. Vehicle maintenance (including both routine maintenance as well as on-site repairs) should be made within a designated area(s) to prevent the migration of mechanical fluids (oil, antifreeze, etc.) into watercourses, wetlands or storm drains. Drip pans or absorbent pads should be used for all vehicle and equipment maintenance activities that involve grease, oil, solvents, or other vehicle fluids. Construction vehicles should be inspected frequently to identify any leaks; leaks should be repaired immediately or the vehicle should be removed from site. Dispose of all used oil, antifreeze, solvents and other vehicle-related chemicals in accordance with Illinois Environmental Protection Agency (IEPA) and IEPA regulations and per Material Safety Data Sheet (MSDS) and/or manufacturer instructions. Contractors should immediately report spills to the Primary Contact.

I. Material Storage and Good Housekeeping

Materials and/or contaminants should be stored in a manner that minimizes the potential to discharge into storm drains or watercourses. An on-site area should be designated for material delivery and storage. All materials kept on site should be stored in their original containers with legible labels, and if possible under a roof or other enclosure. Labels should be replaced if damaged or difficult to read. Bermed-off storage areas are an acceptable alternative to prevent contamination of storm water. MSDS should be available for referencing clean-up procedures. Any release of chemicals/contaminants should be immediately cleaned up and disposed of properly. Contractors should immediately report all spills to the Primary Contact, who should notify the appropriate agencies if needed.

To reduce the risks associated with hazardous materials on site, hazardous products should be kept in original containers unless they are not re-sealable. The original labels and MSDS should be retained on site at all times. Hazardous materials and all other material on site should be stored in accordance with manufacturer or MSDS specifications. When disposing of hazardous materials, follow manufacturer or Local and State recommended methods.

The following good housekeeping practices should be followed on site during the construction project:

- An effort should be made to store only enough product required to do the job.

- All materials stored on site should be stored in a neat, orderly manner in their appropriate containers and adequately protected from the environment.

- Products should be kept in their original containers with the original manufacturer's label.

- Substances should not be mixed with one another unless recommended by the manufacturer.

- Operations should be observed as necessary to ensure proper use and disposal of materials on site.

- Whenever possible, all of a product should be used up before disposing of the container.

- Manufacturer's recommendations for proper use and disposal should be followed.

J. Management of Portable Sanitary Stations

To the extent practicable, portable sanitary stations should be located in an area that does not drain to any protected natural areas, Waters of the State, or storm water structures and should be anchored to the ground to prevent from tipping over. Portable sanitary stations located on impervious surfaces should be placed on top of a secondary containment device, or be surrounded by a control device (e.g., gravel-bag berm). The contractor should not create or allow unsanitary conditions. Sanitary waste should be disposed of in accordance with applicable State and/or Local regulations.

K. Spill Prevention and Clean-Up Procedures

Manufacturer's recommended methods for spill clean-up should be available and site personnel should be made aware of the procedures and the location of the information and clean-up supplies. Materials and equipment necessary for spill clean-up should be kept in the material storage area on site. Equipment and materials should include, but are not limited to, brooms, dust pans, mops, rags, gloves, goggles, kitty litter, sand, sawdust and plastic and/or metal trash containers specifically for this purpose.

Discharges of a hazardous substance or oil caused by a spill (e.g., a spill of oil into a separate storm sewer or Waters of the State) are not authorized by the ILR10 permit. If a spill occurs, notify the Primary Contact immediately. The construction site should have the capacity to control, contain, and remove spills, if they occur. Spills should be cleaned up immediately (after discovery) in accordance with MSDS and should not be buried on site or washed into storm sewer drainage inlets, drainage-ways, or Waters of the State.

Spills in excess of Federal Reportable Quantities (as established under 40 CFR Parts 110, 117, or 302), should be reported to the National Response Center by calling (800) 424-8802. MSDS often include information on Federal Reportable Quantities for materials. Spills of toxic or hazardous materials should be reported to the appropriate State or Local government agency, as required. When cleaning up a spill, the area should be kept well ventilated and appropriate personal protective equipment should be used to minimize injury from contact with a hazardous substance.

In addition to the good housekeeping and other management practices discussed in the previous sections of these Notes, the following minimum practices should be followed to reduce the risk of spills:

- On-site vehicles should be monitored for leaks and should receive regular preventative maintenance to reduce the chance of leakage.

- Petroleum products should be stored in tightly sealed and clearly labeled containers.

- Contractors should follow the manufacturer's recommendations for proper use, storage, and disposal of materials. Excess materials should be disposed of according to the manufacturer's instructions or State and Local regulations, and should not be discharged to the storm sewer or waterbody.

L. De-Watering Operations

During de-watering/pumping operations, only uncontaminated water should be allowed to discharge to protected natural areas, Waters of the State, or to a storm sewer system (in accordance with Local permits). Inlet hoses should be placed in a stabilized sump pit or floated at the surface of the water in order to limit the amount of sediment intake. Pumping operations may be discharged to a stabilized area that consists of an energy dissipating device (e.g., stone), sediment filter bag, or both. Adequate erosion controls should be used during de-watering operations as necessary. Stabilized conveyance channels should be installed to direct water to the desired location as applicable. Additional control measures may be installed at the outlet area at the discretion of the Primary Contact or Engineer.

M. Off-Site Vehicle Tracking

The site should have one or more stabilized construction entrances in conformance with the Plan details. Stabilized construction entrance(s) should be installed to help reduce vehicle tracking of sediments. Streets should be swept as needed to reduce excess sediment, dirt, or stone tracked from the site. Maintenance may include top dressing the stabilized entrance with additional stone and removing top layers of stone and sediment, as needed. Vehicles hauling erodible material to and from the construction site should be covered with a tarp.

N. Topsoil Stockpile Management

If topsoil is to be stockpiled at the site, select a location so that it will not erode, block drainage, or interfere with work on site. Topsoil stockpiles should not be located in the 100-year floodplain or designated buffer protecting Waters of the State. During construction of the project, soil stockpiles should be stabilized or protected with sediment trapping measures. Perimeter controls, such as silt fence, should be placed around the stockpile immediately. Stabilization of the stockpile should be completed if the stockpile is to remain undisturbed for longer than fourteen days.

O. Dust Control

Dust control should be implemented on site as necessary. Repetitive treatment should be applied as needed to accomplish control when temporary dust control measures are used. A water truck should be present on site (or available) for sprinkling/irrigation to limit the amount of dust leaving the site. Watering should be applied daily (or more frequently) to be effective. Caution should be used not to overwater, as that may cause erosion.

If field observations indicate that additional protection from wind erosion (in addition to, or in place of watering) is necessary, alternative dust suppressant controls should be implemented at the discretion and approval of the Engineer and/or Primary Contact.

Street cleaning should also be used as necessary to control dust. Paved areas that have soil on them from the construction site should be cleaned as needed, utilizing a street sweeper or bucket-type endloader or scraper at the direction of the Engineer and/or Primary Contact.

3. MAINTENANCE

Maintenance of the controls incorporated into this project should be performed as needed to assure their continued effectiveness. This includes prompt and effective repair and/or replacement of deficient control measures. The following is a description of procedures that should be used to maintain, in good and effective operating condition, erosion and sediment control measures and other protective measures identified in the SESC Plan and Standard Specifications.

Dust control: When temporary dust control measures are used, repetitive treatment should be applied as needed to accomplish control.

Sediment filter bags: Sediment filter bags should be installed on pump outlet hoses that discharge off site or to sensitive on-site areas, and should be placed in an area that allows for the bag to be removed without producing a sediment discharge. The bags should be inspected frequently and repaired or replaced as needed.

Silt fence: Silt fences should be inspected regularly for undercutting where the fence meets the ground, overtopping, and tears along the length of the fence. Deficiencies should be repaired immediately. Remove accumulated sediments from the fence base when the sediment reaches one-half the fence height. During final stabilization, properly dispose of any sediment that has accumulated on the silt fence. Alternative sediment control measures should be considered for areas where silt fence continually fails.

Stabilized construction entrance: The stabilized construction entrances should be maintained to prevent tracking of sediment onto public streets. Maintenance includes top dressing with additional stone and removing top layers of stone and sediment. The sediment tracked onto the public right-of-way should be removed immediately.

Temporary sediment traps: Temporary sediment traps should be inspected after each period of significant rainfall. Remove sediment and restore the trap to its original dimensions when the sediment has accumulated to one-half the design depth of the permanent pool. Place the sediment that is removed in a designated disposal area. Check the structure for damage from erosion or piping. After all sediment-producing areas have been permanently stabilized, remove the structure and all unstable sediment. Grade the area to blend with the adjoining areas and stabilize properly.

4. INSPECTIONS

The Permittee (or their authorized representative) will be responsible for conducting site inspections in compliance with the ILR10 NPDES Permit. After each inspection, a report should be prepared by the qualified personnel who performed the inspection. The inspection report should be maintained on site as part of the SWPPP.

Inspections should be conducted at least once every seven calendar days and within 24 hours or by the end of the following work day, of the end of a storm event that is 0.5 inches or greater, or equivalent snowfall.

Inspections may be reduced to once per month when construction activities have ceased due to frozen conditions. Weekly inspections will recommence when construction activities are conducted, or if there is 0.5" or greater rain event, or a discharge due to snowmelt occurs.

Each inspection should include the following components:

A. Disturbed areas and areas used for the storage of materials that are exposed to precipitation should be inspected for evidence of, or the potential for, pollutants entering the drainage system. The erosion and sediment control measures identified in the SWPPP should be observed to ensure that they have been installed and are operating correctly. Where discharge points are accessible, they should be inspected to ascertain whether erosion control measures are effective in preventing significant impacts to the receiving waters. Locations where vehicles enter or exit the site should be inspected for off-site sediment tracking. All pumping operations and other potential non-storm water discharge sources should also be inspected.

B. Based on the results of the inspection, the description of potential pollutant sources identified, and the pollution prevention measures described in the SWPPP should be revised, as appropriate, as soon as practicable after the inspection. Implementation of these revisions should provide for timely implementation of any changes to the SWPPP within 7 calendar days following the inspection.

C. A report summarizing the scope of the inspection, name(s) and qualifications of personnel making the inspection, the date(s) of the inspection, major observations relating to the implementation of the SWPPP, and actions taken in accordance with paragraph B. above should be made and retained as part of the SWPPP for at least three years from the date that permit coverage expires or is terminated. The report shall be signed in accordance with Part VI.G. (Signatory Requirements) of the ILR10 NPDES Permit.

D. The Permittee shall notify the appropriate agency field operations section office by e-mail at: epa.swnancompliance@illinois.gov , telephone or fax within 24 hours of any incidence of noncompliance for any violation of the storm water pollution prevention plan observed during any inspection conducted or for violation of any condition of this permit. The Permittee should complete and submit within 5 days an "Incidence of Non-Compliance" (ION) report for any violation of the SWPPP observed during an inspection conducted, including those not required by the SWPPP. Submission should be on forms provided by IEPA and include specific information on the cause of non-compliance, actions which were taken to prevent any further causes of non-compliance, and a statement detailing any environmental impact, which may have resulted from the non-compliance.

E. All reports of non-compliance shall be signed by a responsible authority as defined in Part VI.G. (Signatory Requirements), of the ILR10 NPDES Permit.

F. After the initial contact has been made within the appropriate agency field operations section office, all reports of non-compliance shall be mailed to IEPA at the following address:

Illinois Environmental Protection Agency
Division of Water Pollution Control
Compliance Assurance Section
1021 North Grand Avenue East
Post Office Box 19276
Springfield, Illinois 62794-9276

5. NON-STORM WATER DISCHARGES

Except for flows from fire fighting activities, possible sources of non-storm water that may be combined with storm water discharges associated with the proposed activity, are described below:

- Fire fighting activities
- Fire hydrant flushings
- Water used to wash vehicles where detergents are not used
- Water used to control dust
- Potable water sources including uncontaminated waterline flushings
- Landscape irrigation drainages
- Routine external building washdown which does not use detergents
- Pavement wash waters where spills or leaks of toxic or hazardous materials have not occurred (unless spilled materials have been removed) and where detergents have not been used.
- Uncontaminated air conditioning condensate
- Springs
- Irrigation ditches
- Uncontaminated ground water
- Foundation or footing drains where flows are not contaminated with process materials such as solvents

6. PROHIBITED NON-STORMWATER DISCHARGES

- Concrete and wastewater from washout of concrete (unless managed by an appropriate control)
- Drywall compound
- Wastewater from washout and cleanout of stucco, paint
- Form release oils
- Curing compounds and other construction materials
- Fuels, oils, or other pollutants used in vehicle or equipment operation and maintenance
- Soaps, solvents, or detergents
- Toxic or hazardous substances from a spill or other release
- Any other pollutant that could cause or tend to cause water pollution

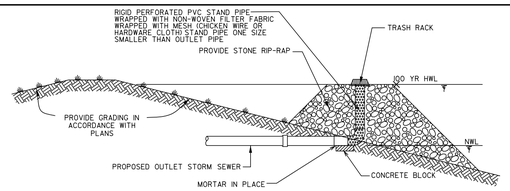
Pollution prevention measures should be implemented for non-storm water components of the discharge.

STABILIZATION TYPE	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.
PERMANENT SEEDING			A			*	*					
DORMANT SEEDING	B										B	
TEMPORARY SEEDING			C				D					
SODDING			E**									
MULCHING	F											

A KENTUCKY BLUEGRASS 90 LBS/ACRE MIXED WITH PERENNIAL RYEGRASS 30 LBS/ACRE.
B KENTUCKY BLUEGRASS 135 LBS/ACRE MIXED WITH PERENNIAL RYEGRASS 45 LBS/ACRE + STRAW MULCH 2 TONS/ACRE.
C SPRING OATS 100 LBS/ACRE
D WHEAT OR CEREAL RYE 150 LBS/ACRE.
E SOD
F STRAW MULCH 2 TONS/ACRE.

* IRRIGATION NEEDED DURING JUNE AND JULY.
** IRRIGATION NEEDED FOR 2 TO 3 WEEKS AFTER APPLYING SOD.

SOIL PROTECTION CHART



PLAN CODE:

PERFORATED RISER DETAIL (PR)

NOT TO SCALE

1. THE PERFORATED RISER SHALL BE PROVIDED AS PART OF THE SEDIMENT AND EROSION CONTROL MEASURES DURING CONSTRUCTION AND IN CONJUCTION WITH THE CONSTRUCTION OF THE DETENTION BASIN.
2. WHEN THE DETENTION BASIN AND UPSTREAM TRIBUTARY DRAINAGE AREAS ARE REVEGETATED, AND WHEN DIRECTED BY THE ENGINEER, THE PERFORATED RISER SHALL BE REMOVED AND THE BASIN OUTFALL STRUCTURES SHALL BE CONSTRUCTED AND THE GRADING RESTORED IN ACCORDANCE WITH THE PLANS.

CONTRACTOR CERTIFICATION

I CERTIFY UNDER PENALTY OF LAW THAT I UNDERSTAND THE TERMS AND CONDITIONS OF THE GENERAL NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT (ILR10) THAT AUTHORIZES THE STORM WATER DISCHARGES ASSOCIATED WITH INDUSTRIAL ACTIVITY FROM THE CONSTRUCTION SITE IDENTIFIED AS PART OF THIS CERTIFICATION.

PROJECT: _____

PERMIT #: ILR10_____

_____ DATE

_____ CONTRACTOR SIGNATURE _____ TELEPHONE NUMBER

_____ PRINTED NAME & TITLE

_____ NAME OF CONTRACTING FIRM

_____ STREET ADDRESS

_____ CITY, STATE, ZIP CODE

TRADE/ RESPONSIBILITIES:_____

NOTE:
ALL CONTRACTORS PERFORMING WORK ON THIS SITE ARE REQUIRED TO SIGN A CONTRACTOR CERTIFICATION STATEMENT AS ILLUSTRATED ABOVE. THE SIGNED STATEMENTS WILL BE MAINTAINED ON THE SITE WITH THE SWPPP.

OWNER SWPPP CERTIFICATION

PROJECT: _____

PERMIT #: ILR10_____

I CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT QUALIFIED PERSONNEL PROPERLY GATHERED AND EVALUATED THE INFORMATION SUBMITTED. BASED ON MY INQUIRY OF THE PERSON OR PERSONS WHO MANAGE THE SYSTEM, OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION, THE INFORMATION IS, TO THE BEST OF MY KNOWLEDGE AND BELIEF, TRUE, ACCURATE, AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS.

_____ SIGNATURE OF OWNER _____ DATE

_____ PRINTED NAME OF OWNER

NOTE:
THE CERTIFICATION ILLUSTRATED ABOVE SHALL BE SIGNED BY THE OWNER LISTED ON THE NOTICE OF INTENT IN ACCORDANCE WITH PART VI.G. OF THE ILR10 NPDES PERMIT. THE SIGNED STATEMENT SHALL BE MAINTAINED ON THE SITE WITH THE SWPPP.

OUTFALL NAME OR NUMBER	INLET PIPE SIZE d (IN)	VELOCITY (F/S)	LENGTH OF APRON L (FT)	RIPRAP GRADATION	WIDTH OF APRON U/S FACE 3d (FT)	WIDTH OF APRON D/S FACE 3d+L (FT)	DEPTH OF RIPRAP Y (IN)

NO.	DATE	REMARKS

NO.	DATE	REMARKS

SOIL EROSION AND SEDIMENT CONTROL PLAN

AUTUMN LEAVES
FRANKLIN, WISCONSIN

CONSULTING ENGINEERS
SITE DEVELOPMENT ENGINEERS
LAND SURVEYORS
9575 W. Higgins Road, Suite 700
Rosemont, Illinois 60018
Phone: (847) 696-4060 Fax: (847) 696-4065
SPACECO INC.

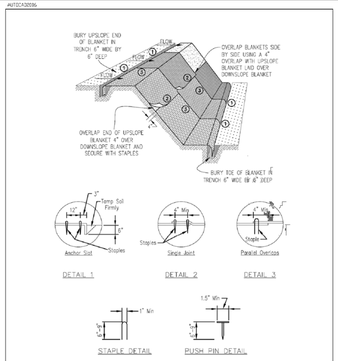
FILENAME: 8251SE01.DGN

DATE: 12/23/14

JOB NO. 8251

SHEET **SE1**
8 OF 13

AUTOCAD2006



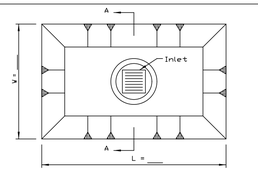
NOTES:

1. Staples shall be placed in a diamond pattern at 2 per s.y. for stitched blankets. Non-stitched shall use 4 staples per s.y. of material. This equates to 200 staples with stitched blanket and 400 staples with non-stitched blanket per 100 s.y. 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 slots shall be stapled at approximately 12" intervals.

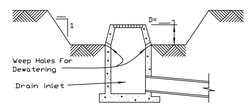
PLAN CODE: (EB)

EROSION CONTROL BLANKET INSTALLATION DETAILS

INLET PROTECTION - EXCAVATED DRAIN PLAN



PLAN VIEW



TYPICAL SECTION A-A

NOTES:

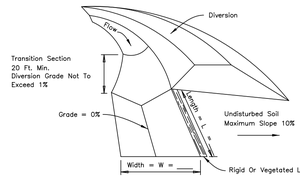
1. Sediment shall be removed and the trap restored to its original dimensions when the sediment has accumulated to 1/2 the design depth of the trap. Removed sediment shall be deposited in a suitable area and in such a manner that it will not erode.
2. The sediment trap shall be removed and the area stabilized when the constructed drainage area has been properly stabilized.
3. All cut slopes shall be 2:1 or flatter.

PLAN CODE: (IP)

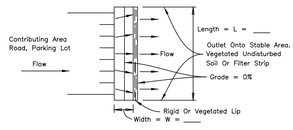
REFERENCE Project ____ Designed ____ Date ____ Checked ____ Date ____ Approved ____ Date ____

NRCS Natural Resources Conservation Service — STANDARD DWG. NO. IL-555 — SHEET 1 OF 1 — DATE 3-11-93

LEVEL SPREADER



LEVEL SPREADER FOR DIVERSION OUTLET



LEVEL SPREADER FOR IMPERVIOUS AREAS

NOTES:

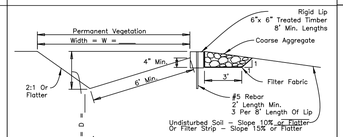
1. Ends of spreader shall be tied into higher ground to prevent flow around the level spreader.
2. See plans for L and W dimensions.

PLAN CODE: (LS)

REFERENCE Project ____ Designed ____ Date ____ Checked ____ Date ____ Approved ____ Date ____

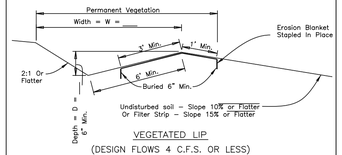
NRCS Natural Resources Conservation Service — STANDARD DWG. NO. IL-570 — SHEET 1 OF 2 — DATE 1-29-99

LEVEL SPREADER



RIGID LIP WITH TIMBER

(DESIGN FLOWS 4 C.F.S. TO 30 C.F.S.)



VEGETATED LIP

(DESIGN FLOWS 4 C.F.S. OR LESS)

NOTES:

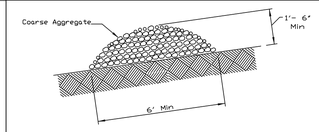
1. Coarse aggregate shall meet one of the following IDOT gradations: CA-1, or CA-3.
2. Filter fabric shall meet the requirements of material specification 592 GEOTEXTILE, Table 1 or 2, Class I, II, or IV.
3. See sheet FILTER STRIP-GRASSED IL-535 for filter strip requirements.
4. See sheet EROSION BLANKET IL-530 for blanket material and installation requirements.
5. See plans for permanent seeding requirements.
6. See plans for D and W dimensions.

PLAN CODE: (LS)

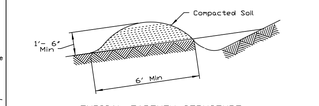
REFERENCE Project ____ Designed ____ Date ____ Checked ____ Date ____ Approved ____ Date ____

NRCS Natural Resources Conservation Service — STANDARD DWG. NO. IL-570 — SHEET 2 OF 2 — DATE 1-29-99

RIGHT OF WAY DIVERSION PLAN



TYPICAL GRAVEL STRUCTURE



TYPICAL EARTHEN STRUCTURE

NOTES:

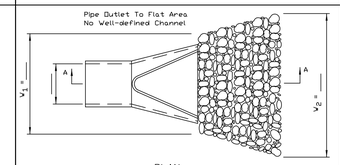
1. Install the diversion as soon as right-of-way has been cleared and graded.
2. Disc the base for the constructed ridge before placing fill.
3. Track the ridge to compact it to the design cross section.
4. Locate the outlet on an undisturbed area. Adjust field spacing of the diversion to use the most stable outlet areas. When natural areas are not deemed satisfactory, provide outlet protection.
5. Immediately seed and mulch the portions of the diversions not subject to construction traffic. Stabilize with gravel areas to be crossed by vehicles.
6. Coarse aggregate, if used, shall meet one of the following IDOT gradations: CA-1,CA-2 CA-3, OR CA-4.

PLAN CODE: (RD)

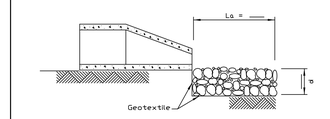
REFERENCE Project ____ Designed ____ Date ____ Checked ____ Date ____ Approved ____ Date ____

NRCS Natural Resources Conservation Service — STANDARD DWG. NO. IL-600 — SHEET 1 OF 1 — DATE 3-3-95

PIPE OUTLET TO FLAT AREA



PLAN



SECTION A-A

NOTES:

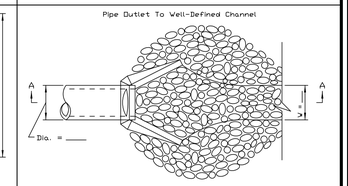
1. The filter fabric shall meet the requirements in material specifications 592 GEOTEXTILE Table 1 or 2, class I, II or III.
2. The rock riprap shall shall meet the IDOT requirements for the following gradation: RR ____, Quality ____
3. The riprap shall be placed according to construction specification 61 LOOSE ROCK RIPRAP. The rock may be equipment placed.

PLAN CODE: (LA)

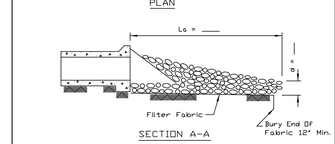
REFERENCE Project ____ Designed ____ Date ____ Checked ____ Date ____ Approved ____ Date ____

NRCS Natural Resources Conservation Service — STANDARD DWG. NO. IL-610 — SHEET 1 OF 1 — DATE 9-25-93

PIPE OUTLET TO CHANNEL



PLAN



SECTION A-A

NOTES:

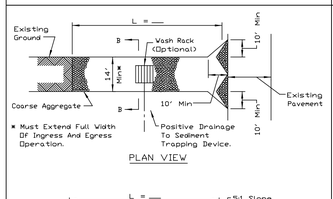
1. The filter fabric shall meet the requirements in material specification 592 GEOTEXTILE Table 1 or 2, Class I, II or III.
2. The rock riprap shall shall meet the IDOT requirements for the following gradation ____
3. The riprap shall be placed according to construction specification 61 LOOSE ROCK RIPRAP. The rock may be equipment placed.

PLAN CODE: (LA)

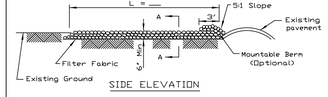
REFERENCE Project ____ Designed ____ Date ____ Checked ____ Date ____ Approved ____ Date ____

NRCS Natural Resources Conservation Service — STANDARD DWG. NO. IL-611 — SHEET 1 OF 1 — DATE 8-18-94

STABILIZED CONSTRUCTION ENTRANCE PLAN



PLAN VIEW



SIDE ELEVATION

NOTES:

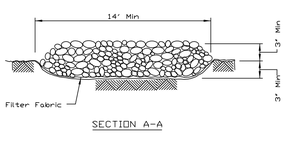
1. Filter fabric shall meet the requirements of material specification 592 GEOTEXTILE, Table 1 or 2, Class I, II or IV and shall be placed over the cleared area prior to the placing of rock.
2. Rock or reclaimed concrete shall meet one of the following IDOT coarse aggregate gradation, CA-1, CA-2, CA-3 or CA-4 and be placed according to construction specification 25 ROCKFILL using placement Method I and Class III compaction.
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.

PLAN CODE: (SE)

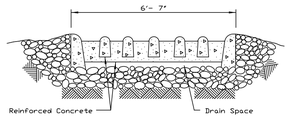
REFERENCE Project ____ Designed ____ Date ____ Checked ____ Date ____ Approved ____ Date ____

NRCS Natural Resources Conservation Service — STANDARD DWG. NO. IL-630 — SHEET 2 OF 2 — DATE 8-18-94

STABILIZED CONSTRUCTION ENTRANCE PLAN



SECTION A-A



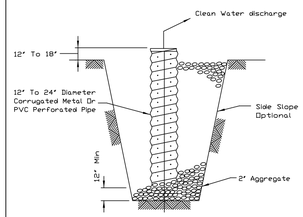
SECTION B-B

PLAN CODE: (SE)

REFERENCE Project ____ Designed ____ Date ____ Checked ____ Date ____ Approved ____ Date ____

NRCS Natural Resources Conservation Service — STANDARD DWG. NO. IL-630 — SHEET 2 OF 2 — DATE 8-18-94

SUMP PIT PLAN



SECTION

PLAN CODE: (SP)

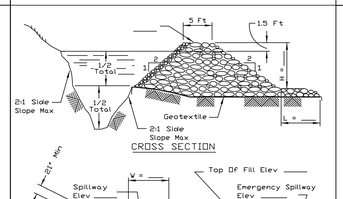
NOTES:

1. Pit dimensions are optional.
2. The standpipe will be constructed by perforating a 12"-24" diameter corrugated metal or PVC pipe.
3. A base of 2" aggregate will be placed in the pit to a minimum depth of 12". After installing the standpipe, the pit surrounding the standpipe will then be backfilled with 2" aggregate.
4. The standpipe will extend 12" to 18" above the lip of the pit.
5. If discharge will be pumped directly to a storm drainage system, the standpipe will be wrapped with filter fabric before installation.
6. If desired, 1/4"-1/2" hardware cloth may be placed around the standpipe prior to attaching the filter fabric. This will increase the rate of water seepage into the pipe.

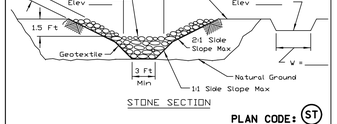
REFERENCE Project ____ Designed ____ Date ____ Checked ____ Date ____ Approved ____ Date ____

NRCS Natural Resources Conservation Service — STANDARD DWG. NO. IL-650 — SHEET 1 OF 1 — DATE 8-18-94

TEMPORARY SEDIMENT TRAP



CROSS SECTION



STONE SECTION

PLAN CODE: (ST)

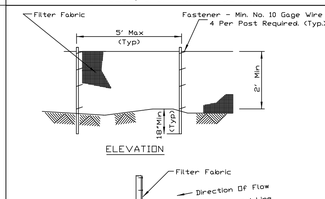
NOTES:

1. If the sediment pool is formed or enlarged the side slope will be 2:1 or flatter.
2. The fill shall be constructed using IDOT RR-4 stone size. A layer of IDOT CA-2 should be placed on the inside face to reduce the flow rate.
3. The rock will be placed according to construction specification 25 ROCKFILL. Placement will be by Method I and compaction will be class III.
4. The geotextile shall meet the requirements in material specification 592 GEOTEXTILE table 1 or 2, class I, II or IV.

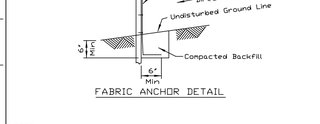
REFERENCE Project ____ Designed ____ Date ____ Checked ____ Date ____ Approved ____ Date ____

NRCS Natural Resources Conservation Service — STANDARD DWG. NO. IL-660 — SHEET 1 OF 1 — DATE 11-20-01

SILT FENCE PLAN SPACECO, INC. PRIMARY DETAIL



ELEVATION



FABRIC ANCHOR DETAIL

NOTES:

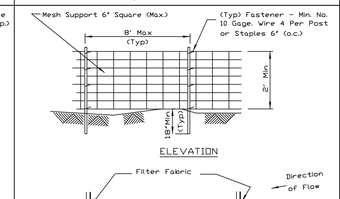
1. Temporary sediment fence shall be installed prior to any grading work in the area to be protected. They shall be maintained throughout the construction period and removed in conjunction with the final grading and site stabilization.
2. Filter fabric shall meet the requirements of material specification 592 Geotextile Table 1 or 2, Class I 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—

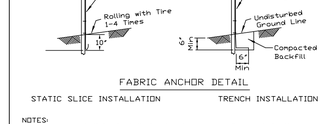
REFERENCE Project ____ Designed ____ Date ____ Checked ____ Date ____ Approved ____ Date ____

IUM-620A — SHEET 1 OF 2 — DATE 3-16-12

SILT FENCE WITH WIRE SUPPORT PLAN SPACECO, INC. ALTERNATE DETAIL



ELEVATION



FABRIC ANCHOR DETAIL

STATIC SLICE INSTALLATION — TRENCH INSTALLATION

NOTES:

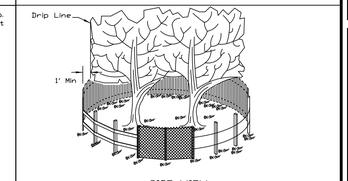
1. Silt Fence shall be installed prior to any grading work in the area to be protected. They shall be maintained throughout the construction period and removed in conjunction with the final grading and site stabilization. Silt Fence shall be placed on the flattest area available.
2. Filter fabric shall meet the requirements of material specification 592 Geotextile Table 1 or 2, Class I 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—

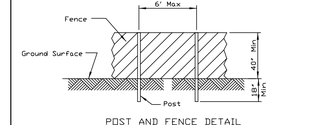
REFERENCE Project ____ Designed ____ Date ____ Checked ____ Date ____ Approved ____ Date ____

IUM-620A(W) — SHEET 1 OF 2 — DATE 3-16-2012

TREE PROTECTION - FENCING



SIDE VIEW



POST AND FENCE DETAIL

NOTES:

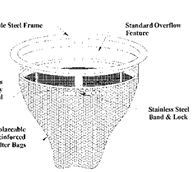
1. The fence shall be located a minimum of 1 foot outside the drip line of the tree to be saved and in no case closer than 5 feet to the trunk of any tree.
2. Fence posts shall be either standard steel posts or wood posts with a minimum cross sectional area of 3.0 sq. in.
3. The fence may be either 42" high snow fence, 42" plastic web fencing or any other material as approved by the engineer/inspector.

PLAN CODE: —TP—

REFERENCE Project ____ Designed ____ Date ____ Checked ____ Date ____ Approved ____ Date ____

NRCS Natural Resources Conservation Service — STANDARD DWG. NO. IL-690 — SHEET 1 OF 1 — DATE 4-7-94

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.

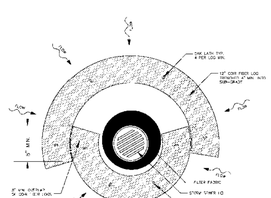
Design Benefits

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

Applications

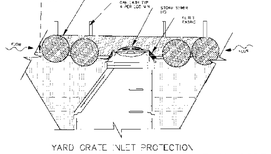
1. Site Development & Highway Construction
   - Inlet Protection / Sediment Control
2. Permanent BMP
   - Maintenance Yards
   - Wash Bays
   - Parking Lots & Garages
   - Airports – Tarmac, Cab/Limo Stands, Rental Returns
   - Bank/Fast Food Drive-Ups
   - Reduce Maintenance of Underground Detention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

PLAN CODE: (FF)



YARD GRATE INLET PROTECTION

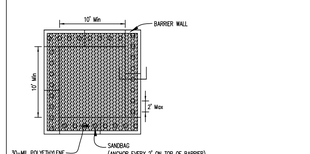
PLAN VIEW



YARD GRATE INLET PROTECTION

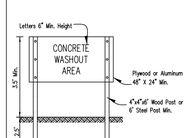
SIDE-ON

PLAN CODE: (FF)



PLAN VIEW

BARRIER WALL ANCHOR SECTION



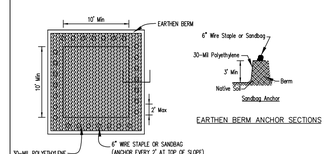
SIGN DETAIL

PLAN CODE: (CW)

NOTES:

1. Maintaining temporary concrete washout facilities shall include removing and disposing of hardened concrete and/or slurry and returning the facilities to a functional condition.
2. Facility shall be cleaned or reconstructed in a new area once washout becomes two-thirds full.

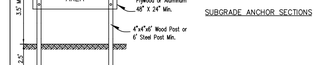
TEMPORARY CONCRETE WASHOUT FACILITY – BARRIER WALL



PLAN VIEW

EARTHEN BERM ANCHOR SECTIONS

SUBGRADE ANCHOR SECTIONS



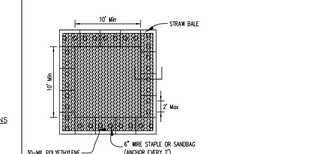
SIGN DETAIL

PLAN CODE: (CW)

NOTES:

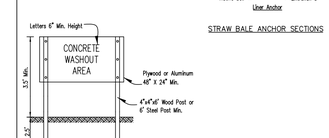
1. Maintaining temporary concrete washout facilities shall include removing and disposing of hardened concrete and/or slurry and returning the facilities to a functional condition.
2. Facility shall be cleaned or reconstructed in a new area once washout becomes two-thirds full.

TEMPORARY CONCRETE WASHOUT FACILITY – EARTHEN TYPE



PLAN VIEW

STRAW BALE ANCHOR SECTIONS



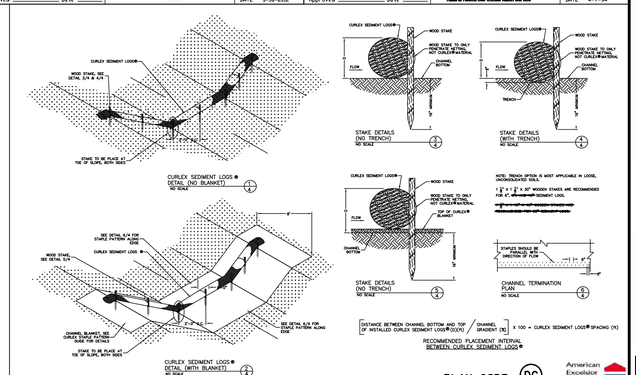
SIGN DETAIL

PLAN CODE: (CW)

NOTES:

1. Maintaining temporary concrete washout facilities shall include removing and disposing of hardened concrete and/or slurry and returning the facilities to a functional condition.
2. Facility shall be cleaned or reconstructed in a new area once washout becomes two-thirds full.
3. Each straw bale is to be staked in place using (2) 2"x2"x4' wooden stakes.

TEMPORARY CONCRETE WASHOUT FACILITY – STRAW BALE



PLAN CODE: (DC)

PROJECT ____ DRAWN BY ____ CHECKED BY ____ DATE ____ SCALE: NONE — AMERICAN EXCELSIOR COMPANY ARLINGTON, TEXAS — CURLEX SEDIMENT LOGS DITCH/CHANNEL APPLICATION DETAIL — REV. NO. ____ DATE ____ DRAWN BY ____ CHECKED BY ____ — FILENAME: 8251SE02.DGN — DATE: 12/23/14 — JOB NO. 8251 — SHEET SE2 9 OF 13

American Excelsior Company — Earth Science Division

NO.	DATE	REMARKS

NO.	DATE	REMARKS

SOIL EROSION AND SEDIMENT CONTROL PLAN

AUTUMN LEAVES
FRANKLIN, WISCONSIN

CONSULTING ENGINEERS
SITE DEVELOPMENT ENGINEERS
LAND SURVEYORS

9575 W. Higgins Road, Suite 700
Rosemont, Illinois 60018
Phone: (847) 696-4060 Fax: (847) 696-4065

SPACECO INC.

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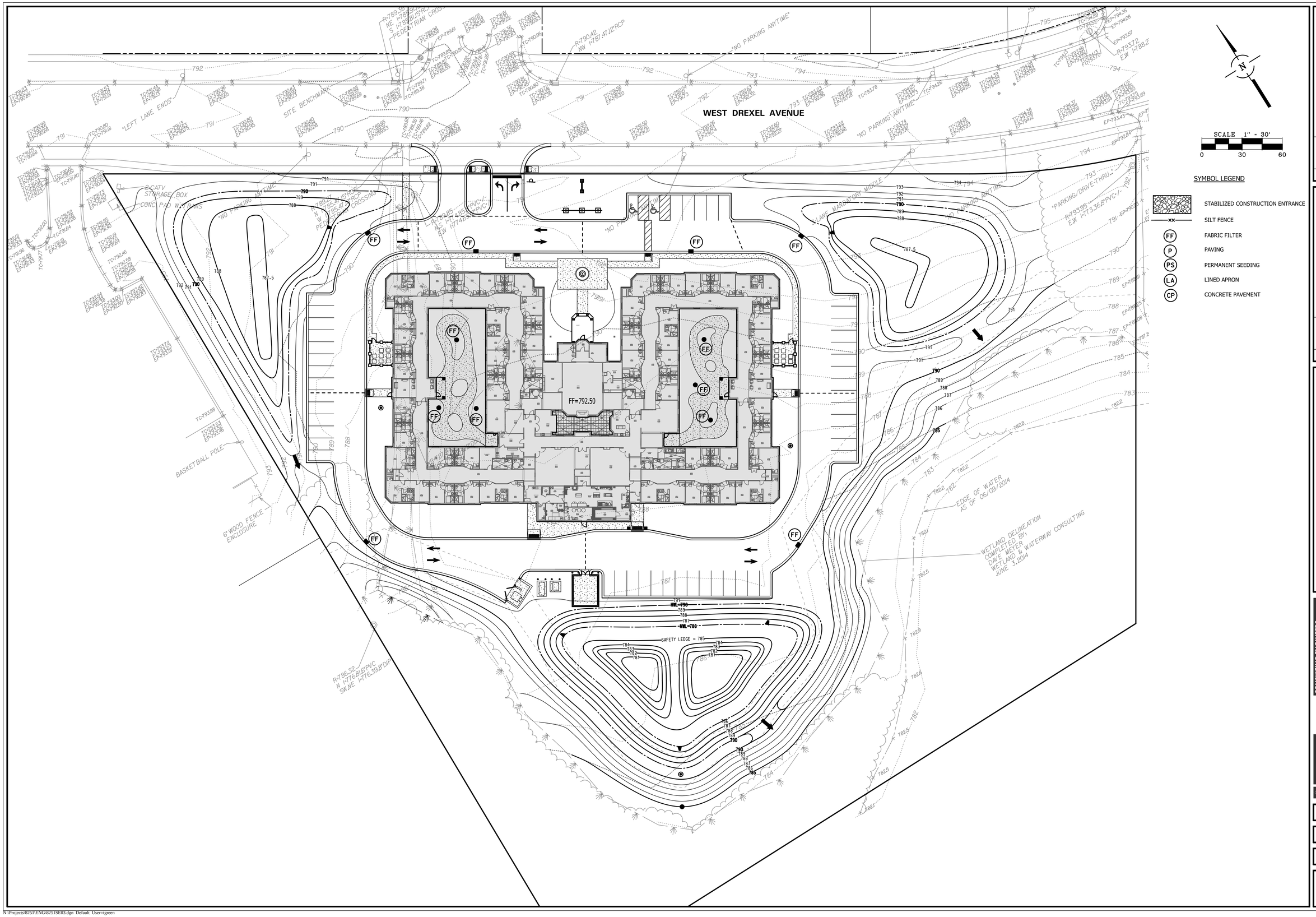

NO.	DATE	REMARKS

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SOIL EROSION AND SEDIMENT CONTROL PLAN

AUTUMN LEAVES
FRANKLIN, WISCONSIN

CONSULTING ENGINEERS
SITE DEVELOPMENT ENGINEERS
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SPACECO INC.

FILENAME: 8251SE03.DGN

DATE: 12/23/14

JOB NO. 8251

SHEET **SE3**
10 OF 13

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EARTHWORK NOTES

1. GENERAL

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.

B. ANY QUANTITIES IN THE BID PROPOSAL ARE INTENDED AS A GUIDE FOR THE CONTRACTORS 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.

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.

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.

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.

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 MASS GRADING BEGINS.

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.

H. EXCESS MATERIALS, IF NOT UTILIZED AS FILL SHALL BE COMPLETELY REMOVED FROM THE CONSTRUCTION SITE AND DISPOSED OF OFF-SITE BY THE CONTRACTOR.

2. TOPSOIL EXCAVATION INCLUDES:

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.

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.

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.

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.

E. MODERATE COMPACTION IS REQUIRED IN NON-STRUCTURAL FILL AREAS.

3. EARTH EXCAVATION INCLUDES:

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.

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 LIFTS THAT SHALL NOT EXCEED EIGHT (8) INCHES IN THICKNESS, AND THE WATER CONTENT SHALL BE ADJUSTED IN ORDER TO ACHIEVE REQUIRED COMPACTION.

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.

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.

4. UNSUITABLE MATERIAL

UNSUITABLE 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. MISCELLANEOUS, THE CONTRACTOR SHALL:

A. SPREAD AND COMPACT UNIFORMLY TO THE DEGREE SPECIFIED ALL EXCESS TRENCH SPOIL AFTER COMPLETION OF THE UNDERGROUND IMPROVEMENTS.

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.

C. PROVIDE WATER TO ADD TO DRY MATERIAL IN ORDER TO ADJUST THE MOISTURE CONTENT FOR THE PURPOSE OF ACHIEVING THE SPECIFIED COMPACTION.

D. BACKFILL THE CURB AND GUTTER AFTER ITS CONSTRUCTION AND PRIOR TO THE PLACEMENT OF THE BASE COURSE MATERIAL.

6. TESTING AND FINAL ACCEPTANCE

A. THE CONTRACTOR SHALL PROVIDE AS A MINIMUM, A FULLY LOADED SIX-WHEEL TANDEM AXLE TRUCK FOR PROOF ROLLING THE PAVEMENT SUBGRADE PRIOR TO THE PLACEMENT OF THE CURB AND GUTTER AND THE BASE MATERIAL. THIS SHALL BE WITNESSED BY MUNICIPAL ENGINEER AND THE OWNER. SEE PAVING SPECIFICATION.

B. ANY UNSUITABLE AREA ENCOUNTERED AS A RESULT OF PROOF ROLLING SHALL BE REMOVED AND REPLACED WITH SUITABLE MATERIAL, OR OTHERWISE CORRECTED, APPROVED BY THE SOILS CONSULTANT.

SIGNING AND PAVEMENT MARKING

1. ALL SIGNING AND PAVEMENT MARKING SHALL BE IN ACCORDANCE WITH THE MANUAL Of UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), THE STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION (SSHSC, WisDOT), CITY OF JANESVILLE, MUNICIPAL CODE AND THESE PLANS.
2. CONTRACTOR SHALL ESTABLISH LOCATION OF ALL SIGNS AND MARKINGS FOR APPROVAL BY THE OWNER PRIOR TO INSTALLATION.
3. SIGNS: SIGNS SHALL BE CONSTRUCTED OF 0.080 INCH THICK FLAT ALUMINUM PANELS WITH REFLECTORIZED LEGEND ON THE FACE. LEGEND SHALL BE IN ACCORDANCE WITH MUTCD AND AS SHOWN ON THE PLANS.
4. POSTS: SIGN POSTS SHALL BE A HEAVY DUTY STEEL "U" SHAPED CHANNEL WEIGHING 3.0 POUNDS/FOOT SUCH AS A TYPE B METAL POST.
5. (RESERVED).
6. PAVEMENT MARKINGS: ALL PAVEMENT MARKINGS IN THE ROADWAY LIMITS, SUCH AS STOP LINES, CENTERLINES, CROSSWALKS AND DIRECTIONAL ARROWS SHALL BE REFLECTORIZED THERMOPLASTIC PER (SSHSC), EXCEPT AS MODIFIED BY THE PLANS.
7. PAVEMENT MARKINGS ON BIKE PATHS, PARKING LOT STALLS, AND SIMILAR "LOW WEAR" APPLICATION, SHALL BE PAINT IN ACCORDANCE TO (SSHSC), EXCEPT AS MODIFIED BY THE PLANS. REFLECTIVE BEADS ARE NOT REQUIRED.
8. COLOR, WIDTH, STYLE, AND SIZE OF ALL MARKINGS SHALL BE IN ACCORDANCE WITH (MUTCD) EXCEPT AS MODIFIED BY THE PLANS.
9. THERMOPLASTIC MARKINGS SHALL BE INSTALLED WHEN THE PAVEMENT TEMPERATURE IS 55 F AND RISING. PAINT MARKINGS MAY BE INSTALLED WHEN THE AIR TEMPERATURE IS 50 F AND RISING.

PAVING NOTES

1. GENERAL

A. PAVING WORK INCLUDES FINAL SUBGRADE SHAPING, PREPARATION AND COMPACTION; PLACEMENT OF SUB-BASE OR BASE COURSE MATERIALS; BITUMINOUS BINDER AND/OR SURFACE COURSES; FORMING, FINISHING AND CURING CONCRETE PAVEMENT, CURBS AND WALKS; AND FINAL CLEAN-UP AND ALL RELATED WORK.

B. COMPACTION REQUIREMENTS: SUB-GRADE = 93%; SUB-BASE = 93%; AGGREGATE BASE COURSE = 95%; BITUMINOUS COURSES = 95% OF MAXIMUM DENSITY PER (SSHSC).

C. IT SHALL BE THE CONTRACTOR'S SOLE RESPONSIBILITY TO PROVIDE PROPER BARRICADING, WARNING DEVICES AND THE SAFE MANAGEMENT OF TRAFFIC WITHIN THE AREA OF CONSTRUCTION. ALL SUCH DEVICES AND THEIR INSTALLATION SHALL CONFORM TO THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES(MUTCD, LATEST EDITION AND IN ACCORDANCE WITH THE MUNICIPAL CODE.

2. SUB-GRADE PREPARATION

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.

B. PRIOR TO THE PLACEMENT OF THE BASE COURSE, THE SUBGRADE MUST BE PROOF ROLLED AND INSPECTED FOR UNSUITABLE MATERIALS AND/OR EXCESSIVE MOVEMENT. 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:

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.

MAXIMUM DEFLECTION ALLOWED IN ISOLATED AREAS MAY BE 1/4" TO 1/2" IF NO DEFLECTION OCCURS OVER THE MAJORITY OF THE AREA.

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 0.04 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.

D. PRIOR TO PLACEMENT OF THE BASE COURSE, THE SUBGRADE MUST BE APPROVED BY THE MUNICIPAL ENGINEER AND/OR OWNER.

3. CONCRETE WORK

A. ALL EXTERIOR CONCRETE SHALL BE PORTLAND CEMENT CONCRETE CLASS "X" PER (SSHSC) WITH AIR ENTRAINMENT OF NOT LESS THAN FIVE (5%) OR MORE THAN EIGHT (8%) PERCENT. CONCRETE SHALL BE A MINIMUM OF SIX (6) BAG MIX AND SHALL DEVELOP A MINIMUM OF 4,000 PSI COMPRESSIVE STRENGTH OF FOURTEEN (14) DAYS. ALL CONCRETE SHALL BE BROOM FINISHED PERPENDICULAR TO THE DIRECTION OF TRAVEL.

B. CONCRETE CURB AND/OR COMBINATION CURB AND GUTTER SHALL BE OF THE TYPE SHOWN ON THE PLANS. THE CONTRACTOR IS CAUTIONED TO REFER TO THE CONSTRUCTION STANDARDS AND THE PAVEMENT CROSS-SECTION TO DETERMINE THE GUTTER FLAG THICKNESS AND THE AGGREGATE BASE COURSE THICKNESS BENEATH THE CURB AND GUTTER. ALTERNATE ENDS OF THE DOWEL BARS SHALL BE GREASED AND FITTED WITH METAL EXPANSION TUBES.

C. CURBS SHALL BE DEPRESSED AT LOCATIONS WHERE PUBLIC WALKS/PEDESTRIAN PATHS INTERSECT CURB LINES, AND OTHER LOCATIONS AS DIRECTED, FOR THE PURPOSE OF PROVIDING ACCESSIBILITY. (SEE CONSTRUCTION STANDARDS FOR DETAIL). BARRIER CURB SHALL ALSO BE DEPRESSED AT DRIVEWAY LOCATIONS.

D. THE CURBS SHALL BE BACKFILLED AFTER THEIR CONSTRUCTION AND PRIOR TO THE PLACEMENT OF THE BASE COURSE.

E. CONCRETE SIDEWALK SHALL BE IN ACCORDANCE WITH THE ABOVE AND THE PLANS. PROVIDE SCORED JOINTS AT 5 FOOT INTERVALS AND 1/2" PREMOLDED FIBER EXPANSION JOINTS AT 50 FOOT INTERVALS, AND ADJACENT TO CONCRETE CURBS, DRIVEWAYS, FOUNDATIONS, ETC.

F. CONCRETE DRIVEWAY APRONS SHALL BE IN ACCORDANCE WITH THE ABOVE AND THE PLANS. PROVIDE 12" X 12" W2.9/W2.9 WELDED WIRE MESH IN DRIVEWAYS. PROVIDE 3/4" PREMOLDED FIBER EXPANSION JOINT ADJACENT TO CURBS AND CONCRETE SIDEWALKS. PROVIDE SAWED OR FORMED CONTRACTION JOINT AT MID-POINT AND 13 FOOT MAXIMUM.

G STANDARD REINFORCED CONCRETE PAVEMENT SHALL BE IN ACCORDANCE WITH THE ABOVE AND THE PLANS. SAWED OR FORMED CONTRACTION EXPANSION JOINTS SHALL BE AS SHOWN ON THE PLANS.

H. CONCRETE CURING AND PROTECTION SHALL BE IN ACCORDANCE WITH (SSHSC). TWO (2) COATS OF BOILED LINSEED OIL IN CONFORMANCE WITH (SSHSC) SHALL BE APPLIED TO ALL EXPOSED CONCRETE SURFACES.

I. THE COST OF AGGREGATE BASE OR SUB-BASE UNDER CONCRETE WORK SHALL BE INCLUDED IN THE COST OF THE RESPECTIVE CONCRETE ITEM.

4. FLEXIBLE PAVEMENT

A. THE PAVEMENT MATERIALS FOR BITUMINOUS STREETS, PARKING LOTS, DRIVEWAYS, SIDEWALKS AND BIKE PATHS SHALL BE AS DETAILED ON THE PLANS. UNLESS OTHERWISE SHOWN ON THE PLANS, THE FLEXIBLE PAVEMENTS SHALL CONSIST OF AGGREGATE BASE COURSE, TYPE B, (OR BAM IF SELECTED BY THE OWNER); BITUMINOUS CONCRETE BINDER COURSE, MIXTURE B; AND BITUMINOUS CONCRETE SURFACE COURSE, CLASS 1, MIXTURE D, TYPE 2; OF THE THICKNESS AND MATERIALS SPECIFIED ON THE PLANS. THICKNESSES SPECIFIED SHALL BE CONSIDERED TO BE THE MINIMUM COMPACTED THICKNESS.

B. ALL TRAFFIC SHALL BE KEPT OFF THE COMPLETED AGGREGATE BASE UNTIL THE BINDER COURSE IS LAID. THE AGGREGATE BASE SHALL BE UNIFORMLY PRIME COATED AT A MINIMUM RATE OF 0.3 GALLONS PER SQUARE YARD PRIOR TO PLACING THE BINDER COURSE. PRIME COAT MATERIALS SHALL BE BITUMINOUS M.C. - 30.

C. PRIOR TO PLACEMENT OF THE SURFACE COURSE, THE BINDER COURSE SHALL BE CLEANED, AND TACK COATED IF DUSTY OR DIRTY. ALL DAMAGED AREAS IN THE BINDER, BASE OR CURB SHALL BE REPAIRED TO THE SATISFACTION OF THE OWNER PRIOR TO LAYING THE SURFACE COURSE. THE CONTRACTOR SHALL PROVIDE WHATEVER EQUIPMENT AND MANPOWER NECESSARY, INCLUDING THE USE OF POWER BROOMS IF REQUIRED BY THE OWNER, TO PREPARE THE PAVEMENT FOR APPLICATION OF THE SURFACE COURSE. THE TACK COAT SHALL BE UNIFORMLY APPLIED TO THE BINDER COURSE AT A RATE OF 0.05 TO 0.10 GALLONS PER SQUARE YARD. TACK COAT SHALL BE AS SPECIFIED IN (SSHSC).

D. SEAMS IN BAM, BINDER AND SURFACE COURSE SHALL BE STAGGERED A MINIMUM OF 6".

E. FOR NEW STREETS, THE CONTRACTOR SHALL PERMIT THE BITUMINOUS CONCRETE BINDER COURSE TO WEATHER ONE (1) WINTER SEASON PRIOR TO THE INSTALLATION OF THE BITUMINOUS CONCRETE SURFACE COURSE UNLESS OTHERWISE SPECIFIED BY THE MUNICIPAL ENGINEER OR OWNER.

5. TESTING AND FINAL ACCEPTANCE

A. THE CONTRACTOR SHALL FOLLOW THE QUALITY CONTROL TESTING PROGRAM FOR CONCRETE AND PAVEMENT MATERIALS ESTABLISHED BY THE OWNER AND/OR MUNICIPALITY.

B. WHEN REQUESTED BY THE OWNER, TEST RESULTS AND DOCUMENTATION FOR THE CONCRETE, BASE COURSE, BITUMINOUS CONCRETE BINDER, AND/OR SURFACE COURSE, SHALL BE SUBMITTED FOR VERIFICATION.

C. PRIOR TO PLACEMENT OF THE BITUMINOUS CONCRETE SURFACE COURSE, THE CONTRACTOR, WHEN REQUIRED BY THE OWNER OR MUNICIPALITY, SHALL OBTAIN SPECIMENS OF THE BINDER COURSE WITH A CORE DRILL WHERE DIRECTED, FOR THE PURPOSE OF THICKNESS VERIFICATION.

D. WHEN REQUIRED BY THE OWNER OR MUNICIPALITY, THE CONTRACTOR SHALL OBTAIN SPECIMENS OF THE FULL DEPTH BITUMINOUS CONCRETE PAVEMENT STRUCTURE WITH A CORE DRILL WHERE DIRECTED, IN ORDER TO CONFIRM THE PLAN THICKNESS. DEFICIENCIES IN THICKNESS SHALL BE ADJUSTED FOR BY THE METHOD DESCRIBED IN (SSHSC).

E. FINAL ACCEPTANCE OF THE TOTAL PAVEMENT INSTALLATION SHALL BE SUBJECT TO THE TESTING AND CHECKING REQUIREMENTS CITED ABOVE.

VENTURE DRIVE PAVING NOTES (CITY OF JANESVILLE)

PAVING OF VENTURE DRIVE SHALL CONFORM TO THE "CITY OF JANESVILLE- PUBLIC WORKS PROGRAM#1 2000, CONTRACT C- PAVING ADDENDUM #1" SPECIFICATIONS

PAVING SPECIFICATIONS SHALL FOLLOW THE MOST CURRENT VERSION OF SECTION 407 ASPHALTIC CONCRETE PAVEMENT OF THE WDOT STANDARD SPECIFICATIONS WITH THE FOLLOWING MODIFICATIONS:

DELETE SECTIONS 407.2.3, 407.2.5,407.3,407.4 AND 407.5
SUBSECTION 407.1 SHALL INCLUDE THE FOLLOWING MODIFICATION

THE ASPHALTIC CONCRETE PAVEMENTS REQUIRED UNDER THIS CONTRACT ARE E-3 LOWER AND UPPER LAYERS. PERFORMANCE GRADED ASPHALT TYPE PG58-28 SHALL BE USED. NOMINAL SIZE AGGREGATE IN LOWER LAYER PAVEMENTS SHALL BE 3/4 INCH (19.0 mm) AND 1/2 INCH (12.5mm) FOR UPPER LAYER PAVEMENTS.

FINE AGGREGATE ANGULARITY FOR PAVEMENT TYPE E-3 SHALL BE 45.

FRACTURED FACES FOR PAVEMENT TYPE E-3 SHALL BE 90/60 (ONE FACE/TWO FACE BY COUNT)

PERCENT PASSING THE #200 SIEVE SHALL BE 3%-7% FOR ALL PAVEMENT TYPES USED

SPECIFICATIONS FOR CONSTRUCTING LIMESTONE BASE COURSES SHALL CONFORM TO SECTION E- STREET CONSTRUCTION OF THE "CITY OF JANESVILLE PUBLIC WORKS PROGRAM #1-2001" SPECIFICATIONS.

FURNISHING OF THE MATERIALS NECESSARY FOR STOCKPILING OF CRUSHED STONE SHALL CONFORM TO THE "DIVISION 10 OF THE CITY OF JANESVILLE STANDARD SPECIFICATIONS- DETAILED SPECIFICATIONS FOR CRUSHED STONE".

SPECIFICATIONS FOR CONSTRUCTION, MATERIALS, AND GENERAL REQUIREMENTS FOR ASPHALTIC CONCRETE PAVEMENT SHALL CONFORM TO "DIVISION 6-OF THE CITY OF JANESVILLE STANDARD SPECIFICATIONS- DETAIL SPECIFICATIONS FOR ASPHALTIC CONCRETE PAVEMENT", EXCLUDING SECTIONS 6.2.3.2, 6.2.4.1, 6.2.4.3, AND 6.2.5

SANITARY SEWER NOTES

1. SANITARY SEWER PIPE SHALL BE PVC (POLYVINYL CHLORIDE) PLASTIC PIPE CONFORMING TO ASTM D-3034 WITH PUSH-ON JOINTS CONFORMING TO ASTM D-3212 AND A STANDARD DIMENSION RATIO (SDR) OF 26 EXCEPT WHERE NOTED.

2. SANITARY SEWER PIPE 18" AND LARGER, WHERE NOTED ON THE PLANS, OR WHERE THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN (SSSWCW) MINIMUM SEPARATION CANNOT BE MAINTAINED, SHALL BE ONE OF THE FOLLOWING:

PLAN CODE	DESCRIPTION
DIP:	DUCTILE IRON WATERMAIN QUALITY PIPE, CLASS 52, (ANSI 21.51) WITH MECHANICAL OR O-RING GASKETED JOINTS (ANSI 21.11).
PPVC:	PRESSURE RATED PVC PIPE MEETING ASTM D-2241 WITH ASTM D-3139 GASKETED JOINT, SDR 26.

3. "BAND-SEAL" OR SIMILAR FLEXIBLE TYPE COUPLINGS SHALL BE USED WHEN CONNECTING SEWER PIPES OF DISSIMILAR MATERIALS.

4. BEDDING: BEDDING SHALL CONSIST OF A MINIMUM OF FOUR (4") INCHES OF COMPACTED CRUSHED GRAVEL OR STONE, 1/4" - 1" 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 67 FOR DIP. THE COST OF THE BEDDING AND COVER SHALL BE MERGED WITH THE UNIT PRICE BID FOR THE SEWER.

5. ALL UNSUITABLE MATERIAL SHALL BE REMOVED BELOW THE PROPOSED SANITARY SEWER AND REPLACED WITH COMPACTED CA-6 CRUSHED GRAVEL OR STONE.

6. 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 OR SELECT ONSITE MATERIAL AND THOROUGHLY MECHANICALLY COMPACTED IN 9" THICK (LOOSE MEASUREMENT) LAYERS. JETTING WITH WATER IS NOT PERMITTED.

7. ALL SANITARY SEWERS ARE TO BE CONSTRUCTED USING A LASER INSTRUMENT TO MAINTAIN LINE AND GRADE.

8. ALL FLOOR DRAINS SHALL CONNECT TO THE SANITARY SEWER.

9. CONNECTIONS TO EXISTING SANITARY SEWER SYSTEM SHALL NOT BE DONE UNTIL AUTHORIZED BY THE MUNICIPALITY.

10. WATERMAINS SHALL BE SEPARATED FROM SANITARY SEWERS AND STORM SEWERS IN ACCORDANCE WITH SSSWCW REQUIREMENTS AS SPECIFIED IN "WATER MAIN" SECTION.

11. NO WATER LINE SHALL BE PLACED IN THE SAME TRENCH AS A SEWER LINE EXCEPT UNDER SPECIAL CIRCUMSTANCES AND THEN ONLY UNDER THE FOLLOWING RULES:

A. PERMISSION SHALL BE OBTAINED FROM THE MUNICIPAL ENGINEERING DEPARTMENT IN WRITING PRIOR TO BEGINNING CONSTRUCTION.

B. THE BOTTOM OF A WATER LINE SHALL BE INSTALLED ON A SHELF A MINIMUM OF 18" ABOVE THE TOP OF THE SEWER AND 18" HORIZONTALLY AWAY FROM THE EDGE OF THE SEWER.

12. MANHOLES: SANITARY SEWER MANHOLES SHALL BE 4'-0" I.D. PRECAST CONCRETE SECTIONS CONFORMING TO ASTM D-478 WITH PREFORMED BITUMINOUS OR "O" RING JOINTS, IN ACCORDANCE WITH MUNICIPAL REGULATIONS, AND HAVE AN ECCENTRIC CONE INSTALLED TO LINE UP WITH THE MANHOLE STEPS. ALL MANHOLE STEPS SHALL BE AT 16" O.C. SIMILAR TO NEENAH R-1980.

ALL PIPE CONNECTION OPENINGS SHALL BE PRECAST WITH RESILIENT RUBBER WATER TIGHT SLEEVES. THE BOTTOM OF MANHOLE SHALL HAVE A CONCRETE BENCH POURED TO FACILITATE SMOOTH FLOWS.

13. FRAMES AND LIDS: ALL SANITARY SEWER MANHOLE FRAMES AND LIDS SHALL BE NEENAH R-1712 UNLESS OTHERWISE NOTED ON THE PLANS. THE LIDS SHALL HAVE RECESSED (CONCEALED) PICK HOLE AND BE SELF SEALING WITH AN "O" RING GASKET. THE LIDS SHALL HAVE THE WORDS "SANITARY" EMBOSSED ON THE SURFACE. THE JOINTS BETWEEN FRAME AND CONCRETE SECTION SHALL BE SEALED WITH A BUTYL ROPE.

14. A MAXIMUM OF EIGHT (8) INCHES OF CONCRETE ADJUSTING RINGS SHALL BE USED TO ADJUST FRAME ELEVATIONS. RINGS SHALL BE SEALED TOGETHER WITH BUTYL ROPE.

15. DROP MANHOLE ASSEMBLIES: DROP MANHOLE ASSEMBLIES SHALL BE PROVIDED AT THE JUNCTION OF SANITARY SEWERS WHERE THE DIFFERENCE IN INVERT GRADES EXCEEDS TWO FEET (2'), OR AS SHOWN ON THE PLANS. THE ENTIRE DROP ASSEMBLY SHALL BE CAST IN CONCRETE MONOLITHICALLY WITH THE MANHOLE BARREL SECTION.

16. CLEANING: ALL MANHOLES AND PIPES SHALL BE THOROUGHLY CLEANED OF DIRT AND DEBRIS, AND ALL VISIBLE LEAKAGE ELIMINATED, BEFORE FINAL INSPECTION AND ACCEPTANCE.

17. TESTING: DEFLECTION AND LEAKAGE TESTING WILL BE REQUIRED. THE PROCEDURE AND ALLOWABLE TESTING LIMITS SHALL BE AS SPECIFIED IN THE "STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN", OR MUNICIPAL CODES.

18. TESTING THE ALIGNMENT/STRAIGHTNESS SHALL BE IN ACCORDANCE WITH MUNICIPAL CODE.

19. TELEVISING: ALL SANITARY SEWERS SHALL BE TELEVISED AND A COPY OF THE TAPE AND A WRITTEN REPORT SHALL BE SUBMITTED AND REVIEWED BY THE OWNER OR MUNICIPALITY BEFORE FINAL ACCEPTANCE. THE REPORT SHALL INCLUDE STUB LOCATION AS WELL AS A DESCRIPTION OF ALL DEFECTS, WATER LEVEL, LEAKS AND LENGTHS. IDENTIFY MANHOLE TO MANHOLE BOTH VERBALLY AND ON-SCREEN USING MANHOLE NUMBERS FROM APPROVED PLANS. ORDER OF WRITTEN REPORT SHALL BE THE SAME AS THE VIDEO TAPES.

20. TEST RESULTS: IF THE SANITARY SEWER INSTALLATION FAILS TO MEET THE TEST REQUIREMENTS SPECIFIED, THE CONTRACTOR SHALL DETERMINE THE CAUSE OR CAUSES OF THE DEFECT AND SHALL, AT HIS OWN EXPENSE REPAIR, OR REPLACE ALL MATERIALS, AND WORKMANSHIP AS MAY BE NECESSARY TO COMPLY WITH THE TEST REQUIREMENTS.

21. CERTIFICATION: CONTRACTOR SHALL SUBMIT CERTIFIED COPIES OF ALL REPORTS OF TESTS CONDUCTED BY AN INDEPENDENT LABORATORY BEFORE INSTALLATION OF PVC PLASTIC PIPE. TESTS SHALL BE CONDUCTED IN ACCORDANCE WITH STANDARD METHOD OF TEST FOR "EXTERNAL LOADING PROPERTIES OF PLASTIC PIPE BY PARALLEL PLATE LOADING", ASTM STANDARDS D-2412 OR D-2241 AS APPROPRIATE FOR THE PIPE TO BE USED. TESTS SHALL ALSO BE CONDUCTED TO DEMONSTRATE JOINT PERFORMANCE AT 5% MAXIMUM DIAMETRIC DEFLECTION OF THE SPIGOT.

22. RECORD DRAWINGS: THE CONTRACTOR SHALL PROVIDE ALL INFORMATION TO PREPARE RECORD DRAWING(S) INCLUDING SERVICE STUB LOCATIONS, TO SPACECO. SPACECO SHALL PREPARE RECORD DRAWINGS AND SUBMIT TO APPROPRIATE PUBLIC AGENCIES. IF FINAL MEASUREMENTS INDICATE DEFICIENCIES, THE CONTRACTOR, AT HIS OWN COST, WILL ADJUST MANHOLES AND/OR SEWERS TO PROPER ELEVATIONS AND OTHERWISE CORRECT THE DEFICIENCIES.

STORM SEWER NOTES

1. STORM SEWER PIPE: ALL STORM SEWER PIPE SHALL BE RCP, UNLESS OTHERWISE NOTED ON THE PLANS, IN ACCORDANCE WITH THE FOLLOWING:

PLAN CODE	MATERIAL
RCP:	REINFORCED CONCRETE PIPE (ASTM C-76) WITH O-RING GASKETED JOINTS (ASTM C-443); TYPE 1, CLASS IV PER SSSWCW. ELLIPTICAL RCCP PIPE SHALL BE TYPE 1, HE-III PER SSSWCW PRECAST FLARED END SECTIONS MAY HAVE MASTIC JOINTS.
HDPE:	HIGH DENSITY POLYETHYLENE CORRUGATED PIPE WITH SMOOTH INTERIOR MEETING AASHTO M-294 SUCH AS ADS N-12 BY ADVANCED DRAINAGE SYSTEM, COLUMBUS, OH: OR HI-Q BY HANCOR, FINDLEY, OH. JOINTS SHALL BE SPLIT CORRUGATED BANDS BY THE PIPE MANUFACTURER.
DIP:	DUCTILE IRON WATERMAIN QUALITY PIPE (ANSI 21.51) WITH MECHANICAL OR PUSH-ON JOINTS (ANSI 21.110. CEMENT LINING IS NOT REQUIRED.
PVC:	POLYVINYL CHLORIDE SEWER PIPE, SDR 26, CONFORMING TO ASTM D-3034 WITH ASTM D-3212 PUSH-ON GASKETED JOINTS.
UD:	RIGID, PERFORATED PVC UNDERDRAIN PIPE (ASTM D-2729), SDR 35, OR SCHEDULE 40, WITH SOLVENT WELD JOINTS AND FILTER FABRIC WRAPPING OR SOCK. PERFORATED HDPE PIPE ALSO ACCEPTABLE.

2. "BAND SEAL" OR SIMILAR COUPLINGS SHALL BE USED WHEN JOINING SEWER PIPES OF DISSIMILAR MATERIALS.

3. (RESERVED)

4. BEDDING: ALL STORM SEWERS SHALL BE INSTALLED ON A TYPE A GRANULAR BEDDING, 1/4" TO 3/4" IN SIZE (CA-13) 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 12" OVER ANY PVC OR HDPE PIPES.

5. CONSTRUCTION: ALL STORM SEWERS ARE TO BE CONSTRUCTED USING A LASER INSTRUMENT TO MAINTAIN LINE AND GRADE.

6. COVER: THE CONTRACTOR SHALL MAINTAIN AT LEAST THREE (3') FEET OF COVER OVER THE TOP OF SHALLOW PIPES AT ALL TIMES DURING CONSTRUCTION. THE CONTRACTOR SHALL MOUND OVER ANY PIPES WHICH HAVE LESS THAN THREE (3') FEET OF COVER DURING CONSTRUCTION UNTIL THE AREA IS FINAL GRADED OR PAVED.

7. STRUCTURES: MANHOLE, CATCH BASIN AND INLET BOTTOMS SHALL BE PRECAST CONCRETE SECTIONAL UNITS OR MONOLITHIC CONCRETE. MANHOLES AND CATCH BASINS SHALL BE 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.
A CONCRETE BENCH TO DIRECT FLOWS SHALL BE CONSTRUCTED IN THE BOTTOM OF ALL INLETS AND .
THE FRAME, GRATE, AND/OR CLOSED LID SHALL BE CAST IRON OF THE STYLE SHOWN ON THE PLANS. 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.

8. CLEANING: THE STORM SEWER SYSTEM SHALL BE THOROUGHLY CLEANED PRIOR TO FINAL INSPECTION AND TESTING.

9 THE STORM SEWER SHALL BE TELEVISED IF REQUIRED BY THE CITY OF JANESVILLE.

SOIL EROSION AND SEDIMENTATION CONTROL SPECIFICATIONS

THE CONTRACTOR SHALL PROVIDE SOIL EROSION AND SEDIMENTATION CONTROL IN ACCORDANCE WITH THE "WISCONSIN CONSTRUCTION SITE BEST MANAGEMENT PRACTICE HANDBOOK" FROM THE WISCONSIN DEPARTMENT OF NATURAL RESOURCES AND IN ACCORDANCE WITH THE PLANS.

SOIL STABILIZATION

1. TOPSOIL AND VEGETATIVE COVER: STRIP TOPSOIL AND REMOVE EXISTING VEGETATION. STOCKPILE ON-SITE (FOR REUSE) AT LOCATION DESIGNATED.
2. TEMPORARY SEEDING: TEMPORARY SEEDING SHALL BE PROVIDED WITHIN 15 DAYS TO ANY DISTURBED AREAS INCLUDING STOCKPILES THAT ARE SCHEDULED TO REMAIN DENUDED FOR LONGER THAN 60 DAYS.
3. PERMANENT SEEDING: IMMEDIATELY FOLLOWING FINISH GRADING AND TOPSOIL PLACEMENT INSTALL SEEDING OR SOD IN AREAS AS DESIGNATED ON PLANS.
4. PAVED AREAS: INSTALL THE AGGREGATE BASE AS SOON AS POSSIBLE IN THE CONSTRUCTION SEQUENCE TO PROVIDE REQUIRED STABILIZATION.
5. SLOPE PROTECTION: PROTECT SEEDING ON STEEP SLOPES WITH MULCH, EXCELSIOR BLANKET, OR EQUAL.

SEDIMENT CONTROL

1. ADJACENT PROPERTY: PROTECT ADJACENT PROPERTY FROM SEDIMENT DEPOSITION BY PRESERVING A VEGETATED BUFFER STRIP OR BY SEDIMENT BARRIERS OR FILTERS AT THE LOWER PERIMETER OF THE LOT.
2. SEDIMENTATION CONTROL SHALL BE PROVIDED IN ALL AREAS AROUND THE PERIMETER OF ALL STOCKPILE AREAS.
3. STORM SEWER INLET PROTECTION: DURING CONSTRUCTION FILTER SEDIMENT LADEN WATER THROUGH STRAW BALES BEFORE IT ENTERS NEWLY CONSTRUCTED STORM SEWER.
4. (RESERVED).
5. PROVISIONS SHALL BE MADE TO MINIMIZE THE TRANSPORT OF SEDIMENT (MUD) BY RUNOFF OR VEHICLE TRACKING ONTO STATE, COUNTY OR TOWNSHIP HIGHWAYS OR LOCAL STREETS. IF NECESSARY, STATE, COUNTY OR TOWNSHIP HIGHWAYS OR LOCAL STREETS SHALL BE CLEANED DAILY AT THE END OF EACH WORK DAY OR AS REQUIRED TO KEEP MUD AND/OR OTHER DEBRIS OFF OF ANY HIGHWAY OR STREET.
6. REMOVAL OF CONTROL MEASURES: DISPOSES OF ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES WITHIN 30 DAYS AFTER FINAL SITE STABILIZATION IS ACHIEVED.
7. SOIL EROSION AND SEDIMENTATION CONTROL MEASURES TO BE CHECKED WEEKLY AND AFTER EACH RAIN. CLEAN AND RESTORE AS REQUIRED.
8. STREETS MUST BE KEPT CLEAN BY STREET SWEEPERS PER THE DISCRETION OF THE OWNER, AND/OR THE DIRECTION OF THE CITY ENGINEER.
9. (RESERVED)
10. THE ROCK COUNTY CONSERVATION DISTRICT (RCCD) MUST BE NOTIFIED ONE WEEK PRIOR TO THE PRE-CONSTRUCTION CONFERENCE, ONE WEEK PRIOR TO THE COMMENCEMENT OF LAND DISTURBING ACTIVITIES, AND ONE WEEK PRIOR TO THE FINAL INSPECTION.
11. A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN SHALL BE MAINTAINED ON THE SITE AT ALL TIMES.
12. PRIOR TO COMMENCING LAND-DISTURBING ACTIVITIES IN AREAS OTHER THAN INDICATED ON THESE PLANS (INCLUDING BUT NOT LIMITED TO, ADDITIONAL PHASES OF DEVELOPMENT AND OFF-SITE BORROW OR WASTE AREAS) A SUPPLEMENTARY EROSION CONTROL PLAN SHALL BE SUBMITTED TO THE OWNER FOR REVIEW BY THE RCCD.
13. THE CONTRACTOR IS RESPONSIBLE FOR INSTALLATION OF ANY ADDITIONAL EROSION CONTROL MEASURES NECESSARY TO PREVENT EROSION AND SEDIMENTATION .
14. DURING DEWATERING OPERATIONS, WATER WILL BE PUMPED INTO SEDIMENT BASINS OR SILT TRAPS.

WATERMAIN NOTES

1. PIPE MATERIALS: WATERMAINS OR SERVICES 3" OR LARGER IN DIAMETER SHALL BE CONSTRUCTED OF BITUMINOUS COATED, CEMENT LINED DUCTILE IRON PIPE, CLASS 52, CONFORMING TO ANSI A-21.50 (AWWA C150) AND ANSI A-21.51 (AWWA C151). CEMENT MORTAR LINING SHALL CONFORM TO ANSI A-21.4 (AWWA C-104). THE JOINTS SHALL BE O-RING GASKETED PUSH-ON OR MECHANICAL JOINTS CONFORMING TO ANSI A-21.11 (AWWA C-111).

2. FITTINGS: ALL FITTINGS SHALL BE OF DUCTILE IRON WITH CEMENT MORTAR LINING AND MECHANICAL JOINTS CONFORMING TO ANSI AS21.10 (AWWA C-110).

3. ALL DUCTILE IRON WATERMAIN AND FITTINGS SHALL BE POLYETHYLENE TUBE ENCASED. ALL MECHANICAL JOINT FITTINGS SHALL USE STAINLESS STEEL NUTS AND BOLTS.

4. WATER SERVICES: WATER SERVICE PIPE, 3" IN DIAMETER OR SMALLER, SHALL BE TYPE K COPPER WATER TUBING, CONFORMING TO ASTM B-88 AND B-251, WITH COMPRESSION OR FLARED JOINTS.

5. GATE VALVES SHALL BE RESILIENT WEDGE IN ACCORDANCE WITH VILLAGE DETAIL.
THE MECHANICAL JOINTS AND ALL FASTENERS ON THE VALVE BODY SHALL HAVE STAINLESS STEEL NUTS AND BOLTS.

6. VALVE VAULTS SHALL BE IN ACCORDANCE WITH PROVIDED DETAIL.

7. FIRE HYDRANTS SHALL BE IN ACCORDANCE WITH PROVIDED DETAIL.

8. ALL WATERMAIN SHALL HAVE COMPACTED CA-7, GRANULAR BEDDING, A MINIMUM OF 4 INCHES BELOW THE BOTTOM OF THE PIPE FOR THE FULL LENGTH. COST FOR BEDDING SHALL BE MERGED WITH THE UNIT PRICE BID FOR THE WATERMAIN.

9. A MINIMUM DEPTH OF COVER OF 6'0" SHALL BE MAINTAINED OVER THE WATER LINES. THE MAXIMUM COVER SHALL BE EIGHT (8') FEET EXCEPT AT SPECIAL CROSSINGS.

10. CONCRETE THRUST BLOCKING SHALL BE INSTALLED ON WATERMAINS AT ALL BENDS, TEES, ELBOWS, ETC. RETAINER GLANDS MAY BE USED WHEN APPROVED BY THE MUNICIPAL ENGINEER.

11. SSSWCW WATERMAIN PROTECTION

1. HORIZONTAL SEPARATION:
  a) WATERMAINS SHALL BE LAID AT LEAST EIGHT FEET HORIZONTALLY FROM ANY EXISTING OR PROPOSED DRAIN, STORM SEWER, SANITARY SEWER OR SEWER SERVICES CONNECTION.
  b) WATERMAINS MAY BE LAID CLOSER THAN EIGHT FEET TO A SEWER LINE WHEN:
    1) LOCAL CONDITIONS PREVENT A LATERAL SEPARATION OF EIGHT FEET;
    2) THE WATERMAIN INVERT IS AT LEAST 18 INCHES ABOVE THE CROWN OF THE SEWER; AND
    3) THE WATERMAIN IS EITHER IN A SEPARATE TRENCH OR IN THE SAME TRENCH ON AN UNDISTURBED EARTH SHELF LOCATED TO ONE SIDE OF THE SEWER.
  c) BOTH THE WATERMAIN AND DRAIN OR SEWER SHALL BE CONSTRUCTED WITH PIPE EQUIVALENT TO WATERMAIN STANDARDS OF CONSTRUCTION WHEN IT IS IMPOSSIBLE TO MEET (a) OR (b) ABOVE. THE DRAIN OR SEWER SHALL BE PRESSURE TESTED TO THE MAXIMUM EXPECTED SURCHARGE HEAD BEFORE BACKFILLING.
2. VERTICAL SEPARATION:
  a) A WATERMAIN SHALL BE LAID SO THAT ITS INVERT IS 18 INCHES ABOVE THE CROWN OF THE DRAIN OR SEWER WHENEVER WATERMAINS CROSS STORM SEWERS, SANITARY SEWERS OR SEWER SERVICE CONNECTIONS. THE VERTICAL SEPARATION SHALL BE MAINTAINED FOR THAT PORTION OF THE WATERMAIN LOCATED WITHIN EIGHT FEET HORIZONTALLY OF ANY SEWER OR DRAIN CROSSED. A LENGTH OF WATERMAIN PIPE SHALL BE CENTERED OVER THE SEWER TO BE CROSSED WITH JOINTS EQUIDISTANCE FROM THE SEWER OR DRAIN.
  b) BOTH THE WATERMAINS AND SEWER SHALL BE CONSTRUCTED WITH PIPE EQUIVALENT TO WATERMAIN STANDARDS OF CONSTRUCTION WHEN:
    1) IT IS IMPOSSIBLE TO OBTAIN THE PROPER VERTICAL SEPARATION AS DESCRIBED IN (a) ABOVE; OR
    2) THE WATERMAIN PASSES UNDER A SEWER OR DRAIN.
  c) A VERTICAL SEPARATION OF 18 INCHES BETWEEN THE INVERT OF THE SEWER OR DRAIN AND THE CROWN OF THE WATERMAIN SHALL BE MAINTAINED WHERE A WATERMAIN CROSSES UNDER SEWER. SUPPORT THE SEWER OR DRAIN LINES TO PREVENT SETTLING AND BREAKING THE WATER MAIN.
  d) CONSTRUCTION SHALL EXTEND ON EACH SIDE OF THE CROSSING UNTIL THE NORMAL DISTANCE FROM THE WATERMAIN TO THE SEWER OR DRAIN LINE IS AT LEAST EIGHT FEET.

12. ALL WATERMAINS SHALL BE PRESSURE TESTED, FLUSHED AND DISINFECTED IN ACCORDANCE WITH AWWA AND MUNICIPAL SPECIFICATIONS. EACH VALVE SECTION SHALL BE PRESSURE TESTED FOR A MINIMUM OF 4 HOURS. ALLOWABLE LEAKAGE IS TO BE ONLY THAT WHICH IS PREDETERMINED BY THE STANDARD SPECIFICATIONS FOR WATER AND SEWER CONSTRUCTION IN WISCONSIN. AT NO TIME IS THERE TO BE ANY VISIBLE LEAKAGE FROM THE MAIN.

NO.	DATE	REMARKS

NO.	DATE	REMARKS

SPECIFICATIONS

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8251SPEC.DGN

DATE:
12/23/14

JOB NO.
8251

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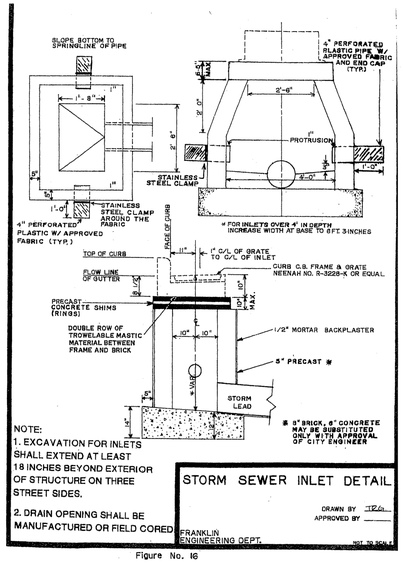
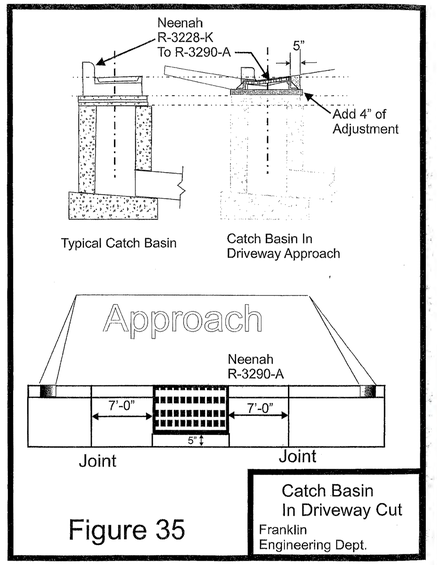
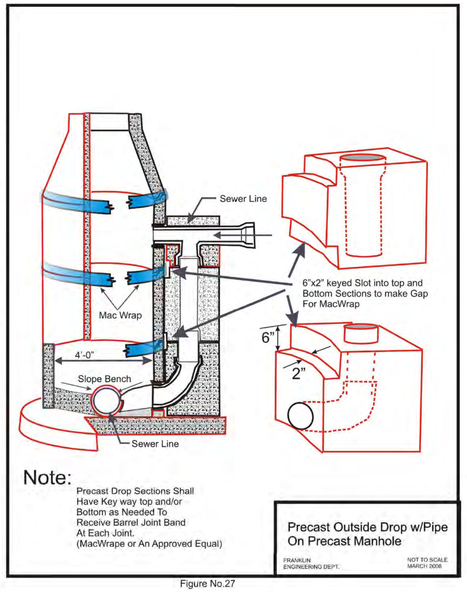


Figure No. 16





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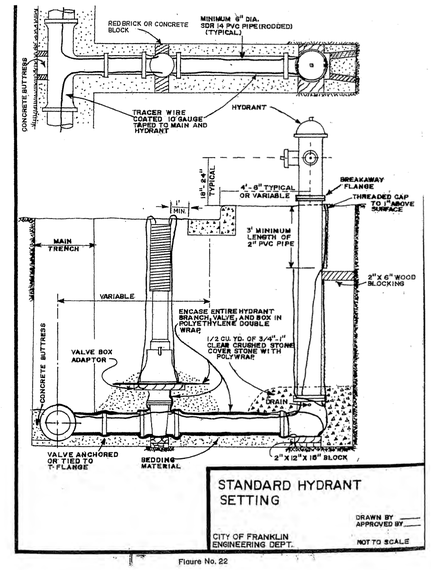

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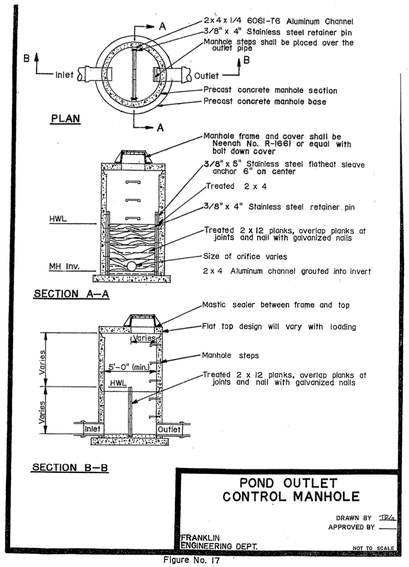

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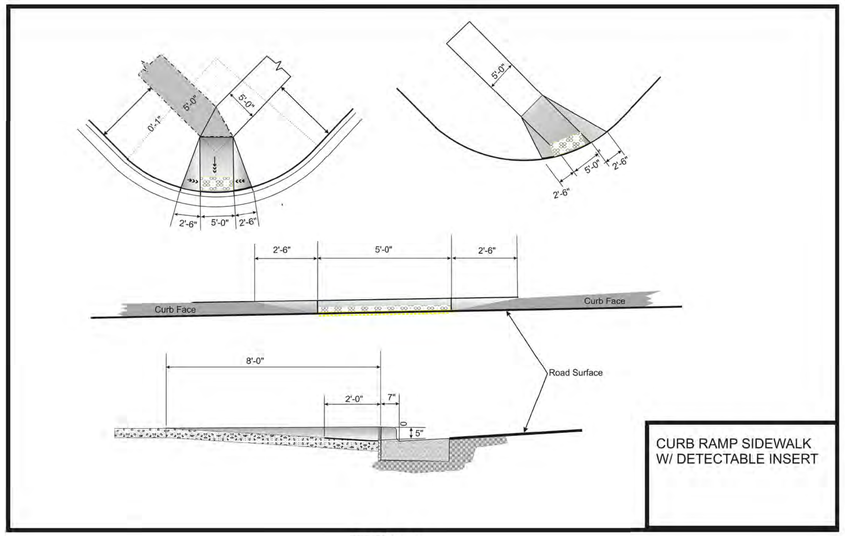

FIGURE 32

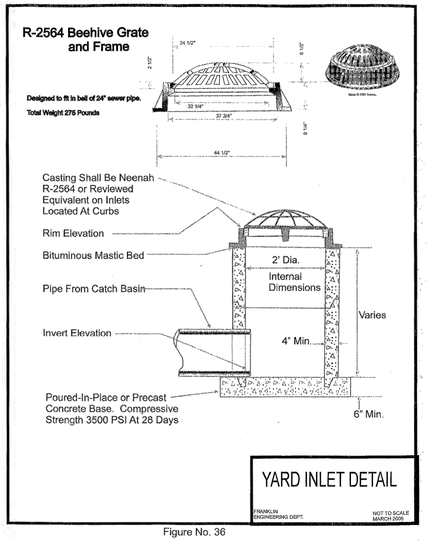

Figure No. 36

NO.	DATE	REMARKS

DETAILS

AUTUMN LEAVES
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DATE: 12/23/14

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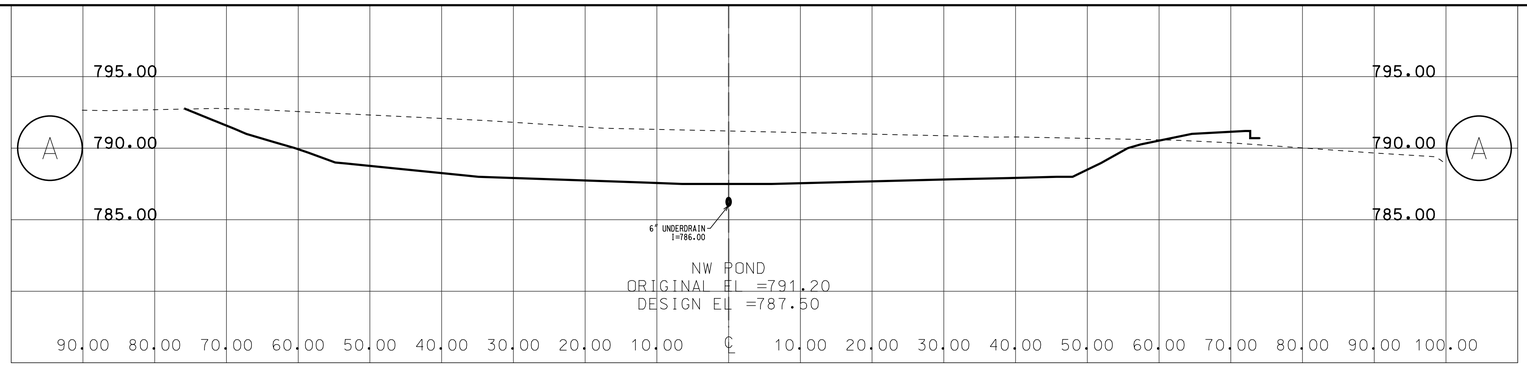

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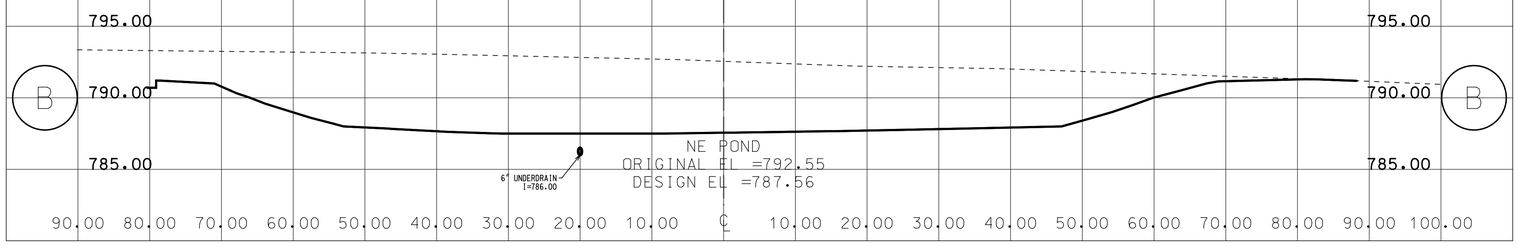

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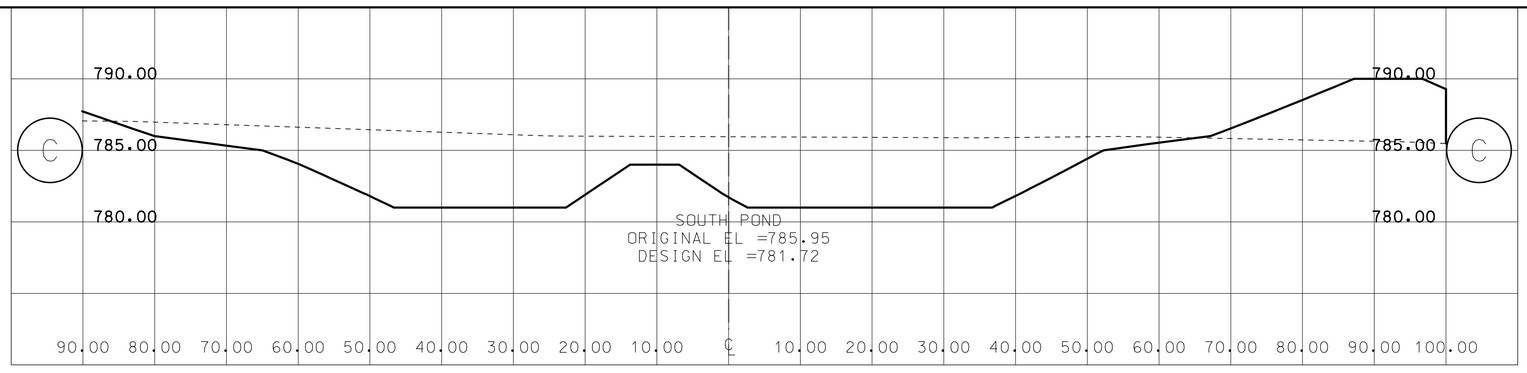

SOUTH POND

NO.	DATE	REMARKS

NO.	DATE	REMARKS

POND CROSS SECTIONS

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FILENAME: 8251XS01.DGN
DATE: 12/23/14
JOB NO. 8251
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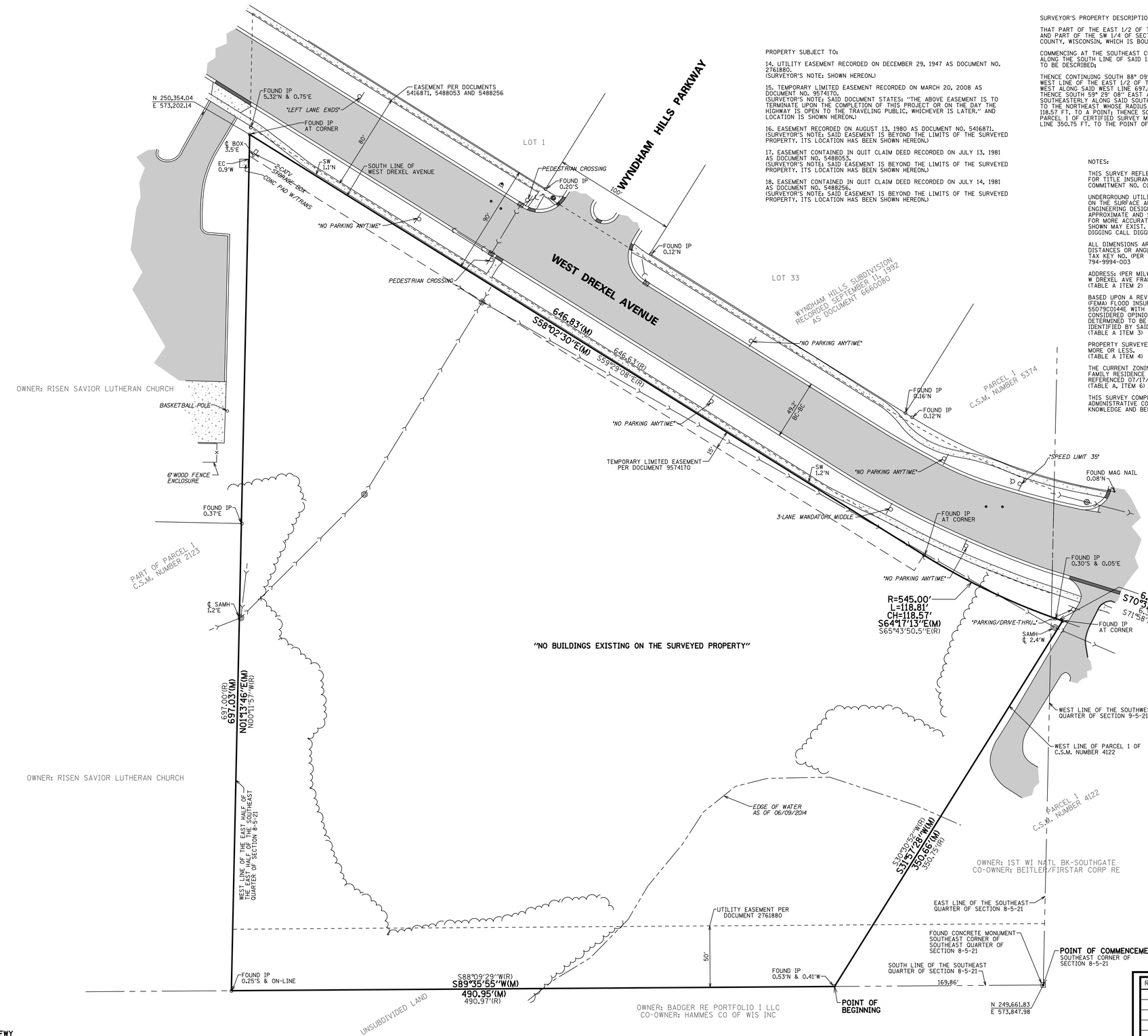

PROPERTY SUBJECT TO:

14. UTILITY EASEMENT RECORDED ON DECEMBER 29, 1947 AS DOCUMENT NO. 2761880.
(SURVEYOR'S NOTE: SHOWN HEREON.)

15. TEMPORARY LIMITED EASEMENT RECORDED ON MARCH 20, 2008 AS DOCUMENT NO. 95741170.
(SURVEYOR'S NOTE: SAID DOCUMENT STATES: "THE ABOVE EASEMENT IS TO TERMINATE UPON THE COMPLETION OF THIS PROJECT OR ON THE DAY THE HIGHWAY IS OPEN TO THE TRAVELING PUBLIC, WHICHEVER IS LATER." AND LOCATION IS SHOWN HEREON.)

16. EASEMENT RECORDED ON AUGUST 13, 1980 AS DOCUMENT NO. 5416871.
(SURVEYOR'S NOTE: SAID EASEMENT IS BEYOND THE LIMITS OF THE SURVEYED PROPERTY. ITS LOCATION HAS BEEN SHOWN HEREON.)

17. EASEMENT CONTAINED IN QUIT CLAIM DEED RECORDED ON JULY 13, 1981 AS DOCUMENT NO. 5488053.
(SURVEYOR'S NOTE: SAID EASEMENT IS BEYOND THE LIMITS OF THE SURVEYED PROPERTY. ITS LOCATION HAS BEEN SHOWN HEREON.)

18. EASEMENT CONTAINED IN QUIT CLAIM DEED RECORDED ON JULY 14, 1981 AS DOCUMENT NO. 5488256.
(SURVEYOR'S NOTE: SAID EASEMENT IS BEYOND THE LIMITS OF THE SURVEYED PROPERTY. ITS LOCATION HAS BEEN SHOWN HEREON.)

SURVEYOR'S PROPERTY DESCRIPTION:

THAT PART OF THE EAST 1/2 OF THE EAST 1/2 OF THE SE 1/4 OF SECTION 8, AND PART OF THE SW 1/4 OF SECTION 9, T 5 N, R 21 E, IN THE CITY OF FRANKLIN, MILWAUKEE COUNTY, WISCONSIN, WHICH IS BOUNDED AND DESCRIBED AS FOLLOWS:

COMMENCING AT THE SOUTHEAST CORNER OF SAID SE 1/4 SECTION; THENCE SOUTH 88° 09' 29" WEST ALONG THE SOUTH LINE OF SAID 1/4 SECTION 169.86 FT. TO THE POINT OF BEGINNING OF THE LANDS TO BE DESCRIBED;

THENCE CONTINUING SOUTH 88° 09' 29" WEST ALONG SAID SOUTH LINE; 490.97 FT. TO A POINT ON THE WEST LINE OF THE EAST 1/2 OF THE EAST 1/2 OF SAID SE 1/4 SECTION; THENCE NORTH 00° 11' 57" WEST ALONG SAID WEST LINE 697.00 FT. TO A POINT ON THE SOUTH LINE OF WEST DREXEL AVENUE; THENCE SOUTH 59° 29' 08" EAST ALONG SAID SOUTH LINE 646.63 FT. TO A POINT; THENCE SOUTHEASTERLY ALONG SAID SOUTH LINE 118.81 FT. ALONG THE ARC OF A CURVE WHOSE CENTER LIES TO THE NORTHEAST WHOSE RADIUS IS 545.00 FT. AND WHOSE CHORD BEARS SOUTH 65° 43' 50.5" EAST 118.57 FT. TO A POINT; THENCE SOUTH 71° 58' 33" EAST 6.39 FT. TO A POINT ON THE WEST LINE OF PARCEL 1 OF CERTIFIED SURVEY MAP NO. 4122; THENCE SOUTH 30° 30' 52" WEST ALONG SAID WEST LINE 350.75 FT. TO THE POINT OF BEGINNING.

NOTES:

THIS SURVEY REFLECTS MATTERS OF TITLE AS LISTED ON A COMMITMENT FOR TITLE INSURANCE BY CHICAGO TITLE INSURANCE COMPANY, COMMITMENT NO. CO-1841 EFFECTIVE DATE: MAY 9, 2014.

UNDERGROUND UTILITIES ARE SHOWN BY USING PHYSICAL EVIDENCE FOUND ON THE SURFACE AND/OR FROM UTILITY COMPANY FIELD STAKES, AND/OR ENGINEERING DESIGN PLANS. THEREFORE, THEIR LOCATIONS ARE APPROXIMATE AND SUSPECTED AND MAY NOT BE COMPLETELY ACCURATE. FOR MORE ACCURATE LOCATION, FIELD EXCAVATE. OTHER UTILITIES NOT SHOWN MAY EXIST. NO UNDERGROUND UTILITIES WERE LOCATED. BEFORE DIGGING CALL DIGGERS HOTLINE AT 811 OR 1-800-242-8511.

ALL DIMENSIONS ARE IN FEET AND DECIMAL PARTS THEREOF. NO DISTANCES OR ANGLES SHOWN HEREON MAY BE ASSUMED BY SCALING.
TAX KEY NO. (PER TITLE COMMITMENT):
794-9994-003

ADDRESS: (PER MILWAUKEE COUNTY LAND RECORDS WEB PORTAL)
W DREXEL AVE FRANKLIN, WI 53132
(TABLE A ITEM 2)

BASED UPON A REVIEW OF THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) FLOOD INSURANCE RATE MAP (FIRM) MAP NUMBER 55079C0143E AND 55079C0144E WITH EFFECTIVE DATE: SEPTEMBER 26, 2008, IT IS OUR CONSIDERED OPINION THAT THIS PROPERTY LIES IN ZONE X - AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN AS IDENTIFIED BY SAID F.I.R.M. MAP.
(TABLE A ITEM 3)

PROPERTY SURVEYED CONTAINS 301,283 SQUARE FEET, OR 6.917 ACRES, MORE OR LESS.
(TABLE A ITEM 4)

THE CURRENT ZONING FOR THE SURVEYED PROPERTY IS R-8 - MULTIPLE FAMILY RESIDENCE DISTRICT, BASED ON THE CITY OF FRANKLIN WEBSITE REFERENCED 07/17/2014.
(TABLE A, ITEM 6)

THIS SURVEY COMPLIES WITH CHAPTER AE-7 OF THE WISCONSIN ADMINISTRATIVE CODE AND IS CORRECT TO THE BEST OF THE SURVEYOR'S KNOWLEDGE AND BELIEF.

N

SCALE 1" - 40'
0 40 80

BASIS OF BEARINGS:
TRUE NORTH BASED ON GEODETIC OBSERVATION WISCONSIN C.O.R.S. - MILWAUKEE

LEGEND

	TREE LINE
	STORM SEWER
	SANITARY SEWER
	COMBINED SEWER
W	WATER MAIN
G	GAS MAIN
T	UNDERGROUND TELEPHONE LINE
E	UNDERGROUND ELECTRIC LINE
CATV	UNDERGROUND CATV LINE
OH	OVERHEAD WIREISION UTILITY POLES
FO	FIBER OPTIC LINE
	RAILROAD
	FENCE
	GUARDRAIL
	EDGE OF WATER
	WETLAND LIMITS
	SANITARY MANHOLE (SAMH)
	STORM MANHOLE
	CATCH BASIN
	INLET
	FLARED END SECTION
	ELECTRIC MANHOLE
	TELEPHONE MANHOLE
	TELEPHONE UPRIGHT
	ELECTRIC UPRIGHT
	CABLE TV UPRIGHT
	FIRE HYDRANT
	VALVE AND VAULT
	WATER VALVE
	B BOX
	AUXILARY VALVE
	WELL
	GAS VALVE
	HAND HOLE
	STREET LIGHT
	UTILITY POLE
	TRAFFIC SIGNAL
	TRAFFIC SIGNAL BOX
	SPRINKLER HEAD
	BOLLARD
	MAILBOX
	SIGN
	UNIDENTIFIED MANHOLE
680	CONTOUR
× 99999	SPOT ELEVATION
	RIGHT-OF-WAY MONUMENT
	DISC
	IRON / STEEL ROD (IR)
	IRON PIPE (IP)
	CUT CROSS
	PK / MAG NAIL
	RAILROAD SPIKE
	SOIL BORING
(M)	MEASURED
(R)	RECORD
EC	EDGE OF CONCRETE
BC	BACK OF CURB
	ASPHALT
	CONCRETE
	GRAVEL

FOR REVIEW PURPOSES ONLY

STATE OF ILLINOIS)
) SS
COUNTY OF COOK)

TO: CHICAGO TITLE INSURANCE COMPANY
AND TO: PRESERVE APARTMENTS LLC AND PAUL J. BURBACH

THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE 2011 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/ACSM LAND TITLE SURVEYS," JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS, AND INCLUDES ITEMS 1, 2, 3, 4 6(a), 8, 11(a) & 13 OF TABLE "A" THEREOF. THE FIELD WORK WAS COMPLETED ON JUNE 9, 2014.

THIS SURVEY WAS PREPARED FOR THE LASALLE GROUP, INC. IRVING, TEXAS

GIVEN UNDER MY HAND AND SEAL THIS_____ DAY OF_____, 20_____ IN ROSEMONT, ILLINOIS.

_____
JERRY P. CHRISTOPH, W.R.L.S. No. S-2701
LICENSE EXPIRES: 1-31-2016
(VALID ONLY IF EMBOSSED SEAL AFFIXED)

PREPARED FOR:
THE LASALLE GROUP
545 E JOHN W CARPENTER FWY
IRVING, TX 75062

REVISIONS:

SPACECO INC.
CONSULTING ENGINEERS
SITE DEVELOPMENT ENGINEERS
LAND SURVEYORS
9575 W. Higgins Road, Suite 700,
Rosemont, Illinois 60018
Phone: (847) 696-4060 Fax: (847) 696-4065

DATE: 07/17/2014
JOB NO: 8251
FILENAME: 8251ALTA-01
SHEET 1 OF 1

PROJECT LOCATION:
9201 W. DREXEL AVE
FRANKLIN, WISCONSIN
TAX KEY NO.: 794-9994-003
ZONING: R-8 & C-1

LEGEND

- WETLAND - UNDISTURBED
- WETLAND - IMPACTED
- BUFFER - IMPACTED
- BUFFER - UNDISTURBED
- SETBACK - IMPACTED

SUMMARY OF PROTECTED RESOURCE

STEEP SLOPES > 5,000 S.F.	0 S.F.	= 0.00 AC
WOODLANDS & FORESTS	DOES NOT EXIST ON SITE	
LAKES & PONDS	DOES NOT EXIST ON SITE	
STREAMS	DOES NOT EXIST ON SITE	
SHORE BUFFER	DOES NOT EXIST ON SITE	
FLOODPLAINS	DOES NOT EXIST ON SITE	
WETLANDS (UNDISTURBED)	79,423 S.F.	= 1.82 AC
WETLANDS (IMPACTED)	6,022 S.F.	= 0.14 AC
BUFFER (UNDISTURBED)	1,659 S.F.	= 0.04 AC
BUFFER (IMPACTED)	50,870 S.F.	= 1.17 AC
SETBACK (IMPACTED)	15,479 S.F.	= 0.35 AC
TOTAL PROTECTED RESOURCE AREA:	153,453 S.F.	= 3.52 AC
TOTAL BASE SITE:	301,283 S.F.	= 6.92 AC
NET BUILDABLE AREA:	147,830 S.F.	= 3.40 AC

DEVELOPER
THE LASALLE GROUP
1900 E. GOLF ROAD, SUITE 1120
SCHAUMBURG, ILLINOIS 60173-5080
PHONE: (847) 413-2380
FAX: (847) 413-2382

NO.	DATE	REMARKS

NO.	DATE	REMARKS

ENVIRONMENTAL IMPACTS PLAN

AUTUMN LEAVES
FRANKLIN, WISCONSIN

CONSULTING ENGINEERS
SITE DEVELOPMENT ENGINEERS
LAND SURVEYORS
9575 W. Higgins Road, Suite 700,
Rosemont, Illinois 60018
Phone: (847) 696-4060 Fax: (847) 696-4065
SPACECO INC.

FILENAME: 8251\RESOURCE PRO...DGN
DATE: 12/22/14
JOB NO. 8251
SHEET **NRPP**
1 OF 1

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